

MANAGEMENT DISCUSSION AND ANALYSIS

DISASTER RELIEF FUND

FEMA PHOTO BY SHAWN CHADWICK



Hurricane Floyd brought flooding to record levels.

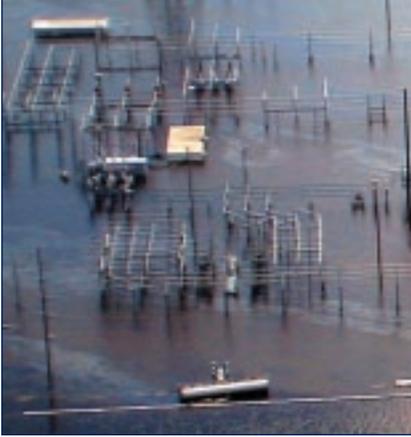
The Robert T. Stafford Disaster Relief and Emergency Assistance Act authorizes the President to provide federal assistance to supplement state and local governments' disaster response, recovery, preparedness, and mitigation efforts. FEMA provides this assistance through the President's Disaster Relief Fund (DRF). The President can declare a major disaster upon the request of the governor of the affected state. A declaration authorizes FEMA to provide federal disaster assistance. Each declaration specifies the type of incident covered, the time period covered, the types of disaster assistance available, the counties affected by the declaration, and also identifies the Federal Coordinating Officer who manages the response and recovery efforts.

The President also can declare emergencies. Under such a declaration, only emergency response activities, debris removal, and disaster housing programs may be initiated. DRF expenditures for an emergency are limited to \$5 million per declaration, unless Congress is notified otherwise. In addition, the FEMA Director is authorized to provide fire suppression assistance to supplement the resources of communities when fires threaten such destruction as would warrant a major disaster declaration.

The Stafford Act directs FEMA to address the short, medium, and long-term consequences of a disaster on both individuals and communities. Following a presidential declaration, FEMA's immediate priorities are to protect a community's health and safety, address victims' needs, and restore the functioning of civil government. Next, the Agency focuses on aiding communities and individuals to rebuild damaged properties and facilities. The long-range objective is to reduce the impact of future events through mitigation and strengthened community preparedness. Careful management is required to ensure that short-term actions do not counteract FEMA's long-term goals.

DISASTER ASSISTANCE PROGRAMS

Disaster assistance is provided primarily through Individual and Public Assistance programs and the Hazard Mitigation Grant Program. Individual Assistance programs (also known as Human Services), provide direct support to families and individuals recovering from disasters such as housing assistance, Individual and



Electric power plant was flooded by Hurricane Floyd.

Family Grants to cover the loss of uninsured personal property, and unemployment, crisis counseling and legal service assistance.

Public Assistance programs (also known as Infrastructure) are grant programs that supplement the efforts of state, county, municipal governments, and eligible private non-profit organizations in rebuilding after disasters. These programs pay for the repair of damaged facilities and emergency measures to save lives and protect public health, safety, and property. Repair and rebuilding is performed in accordance with applicable local and state codes and reasonable costs to mitigate against future damage. Public Assistance provides assistance to remove debris, reinstitute protective measures, and repair roads, bridges, water control facilities, public buildings, public utilities, hospitals, parks, and recreational facilities.

Disaster assistance also is provided through the Hazard Mitigation Grant Program (HMGP), authorized by the Stafford Act to reduce the risk of future damage, hardship, loss, and suffering in an area affected by a major disaster. The HMGP is designed to ultimately reduce the future needs for federal disaster assistance by encouraging the building of an environment increasingly resistant to the effects of natural hazards. Examples of projects include elevation of flood-prone buildings, acquisition or relocation of buildings at risk, and the seismic strengthening of structures.

The trend of increased levels of disaster costs experienced since FY 1989 continued in FY 1999. In FY 1999, FEMA obligated \$4.4 billion from the DRE. This included \$4.3 billion for direct disaster activities for all disasters declared in FY 1999, and for disasters open from prior years. Included in that total is \$751 million for 53 major declarations in FY 1999, and another \$73.9 million for 16 emergency declarations. A complete financial history of the Stafford Act is provided later in this section. In FY 1999, FEMA processed 750,000 teleregistrations for disaster assistance, awarded \$400 million in disaster housing payments, and handled more than 1 million calls on the customer service help-line.

DISASTER ASSISTANCE SUPPORT

When disaster strikes, FEMA assesses the damage, decides what assistance is needed, and makes disaster aid available through a disaster operations support infrastructure. In FY 1999, FEMA obligated \$118.5 million for disaster support activity. Disaster support activity provides for fundamental ongoing capabilities that are not readily attributable to any one specific declared disaster. Although many operational functions contribute to delivery of disaster assistance, disaster assistance is only as good as the support that is provided by elaborate logistics and information systems. FEMA's Operations Support Directorate provides logistics support, while information systems are supplied through the Information Technology Services Directorate.

FEMA PHOTO BY WILLIAM E. RECKERT



Disaster supplies are readied for shipment to disaster sites.

FEMA PHOTO BY WILLIAM E. RECKERT



Distribution of water is one of the most critical missions immediately following a disaster.

LOGISTICS SUPPORT

Getting necessities to disaster sites is the task of the Operations Support Directorate through its Logistics Program. The main mission is to provide critical resources to FEMA personnel and disaster survivors throughout the disaster operation, particularly in the initial stages. Since FY 1995, FEMA has developed three primary services to enhance efficiency and timeliness of deploying federal assets during emergency operations—the Agency Logistics Center, Territory Logistics Centers, and the Disaster Information Systems Clearinghouse. These centers play a major role in controlling costs while providing rapid services during disaster operations.

The Agency Logistics Center (ALC) provides centralized control over the requisitioning, tracking, receiving, storing, distributing, recovering, and disposing of disaster property and equipment. The ALC was developed to enhance readiness and response, improve accountability of disaster assets, and reduce overall disaster costs. To ensure that disaster survivors and FEMA personnel quickly get necessary supplies, the ALC procures and sets aside Initial Response Resources (IRR) such as tents, water, emergency meals, generators, and plastic sheeting.

Initial Response Resources (IRR) Commodities

Supplies

- Blankets
- Cots
- Flashlights
- MREs
- Personal Toilet Kits
- Plastic Tarps
 - Roofing
 - Misc.
- Sleeping Bags
- Tents
- Water (1-liter containers)

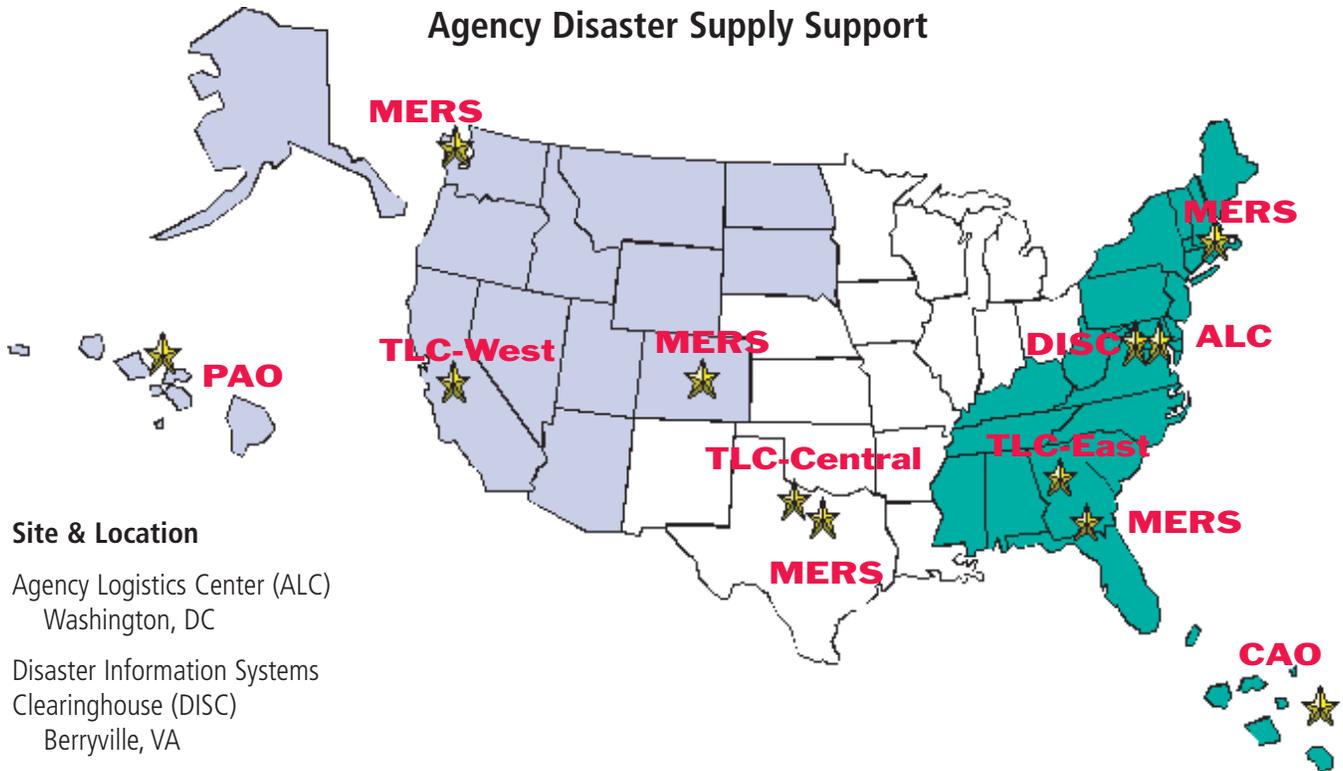
Equipment

- Emergency Generators
- Refrigerated Vans
(limited quantity)

These commodities are stored at the three Territory Logistics Centers (TLCs).

TLCs are warehouses that store, refurbish, and recycle critical response assets used in initial emergency responses. The TLCs also store pre-packaged kits that contain office furniture and administrative supplies for disaster field facilities. The TLCs are strategically located in California, Texas, and Georgia. In addition, IRRs are pre-positioned at disaster relief support facilities at FEMA's five Mobile Emergency Response Support (MERS) Detachments.

Agency Disaster Supply Support



Site & Location

Agency Logistics Center (ALC)
Washington, DC

Disaster Information Systems
Clearinghouse (DISC)
Berryville, VA

Territory Logistics Centers (TLCs)
TLC-East, Ft. Gillem, GA
TLC-Central, Ft. Worth, TX
TLC-West, Moffett Field, CA

Caribbean Area Office (CAO)
Puerto Rico and Virgin Islands

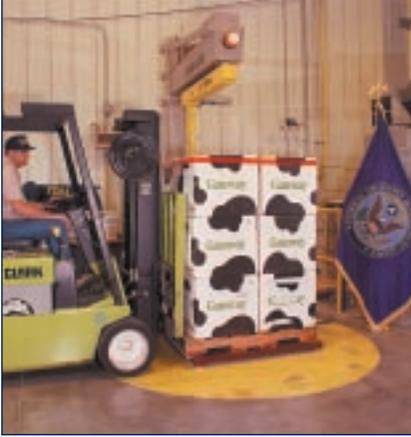
Pacific Area Office (PAO)
Hawaii & Guam

Mobile Emergency Response Support
(MERS) Detachments
Bothell, WA
Denton, TX
Denver, CO
Maynard, MA
Thomasville, GA

By issuing kits and commodities from FEMA warehouses during the initial stages of a disaster, critical time is saved on sourcing and contracting for goods from private suppliers. It also allows FEMA to quickly deploy assets in situations when a disaster is imminent or occurs without warning while the federal acquisition mechanism begins procuring supplemental items. The logistical and distribution channels are a challenge and an immense undertaking. The table below indicates the enormous quantities of material delivered to disaster sites during the last two years.

Critical Quantities of Assets Provided for Disaster Support

	1998 (28 Disasters)	1999 (36 Disasters)
DFO Kits	27	38
Generators	758	178
Portable Toilet Kits	176	1308
Sleeping Bags	4,550	240
Tents	1,583	0
Cots	33,878	8,724
Blankets	38,968	9,344
MREs	225,840	43,773
Plastic Rolls	67,945	26,696
Water (gallons)	6,320,758	374,036



Computer equipment is being sent to a FEMA Disaster Field Office.

In addition to the pre-packaged furniture and administrative supply kits, FEMA's Logistics Division also stores and ships automated data processing and communications equipment such as computers and cellular telephones. The Disaster Information Systems Clearinghouse (DISC) is responsible for the storage, deployment, retrieval and refurbishment of information and communications equipment.

To track the property and equipment used during disaster operations, the ALC and the DISC use the Logistics Information Management System (LIMS). LIMS tracks what resources are available, what commodities are deployed, and what goods are returned. Not only is LIMS used at headquarters, but the DISC also equips FEMA field operations with LIMS go-kits for on-site property management. To assist in LIMS operation, the Automated Information Control personnel train FEMA staff in LIMS and give on-site inventory training and technical assistance.

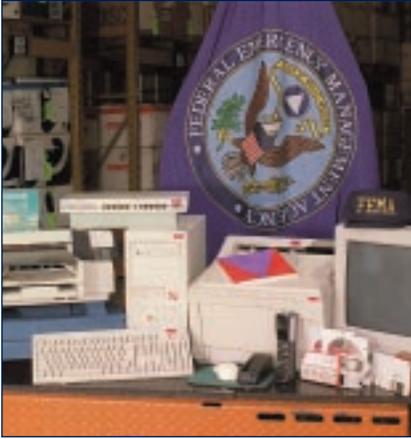
Progress can be seen by significant cost-avoidance:

- Cost-avoidance of over \$15.3 million by reusing rather than purchasing new DISC equipment (computers, cellular phones, etc);
- Cost-avoidance of over \$2.3 million by reusing rather than purchasing new equipment for DFO kits (office furniture, administrative supplies, etc.);
- Cost-avoidance of over \$3.7 million by reusing rather than purchasing new generators;
- Savings of over \$300,000 in transportation by pre-deploying DISC workstations;
- Savings of over \$190,000 in transportation by pre-deploying generators; and
- Many smaller savings, such as \$20,000, by enabling users to download the automated property management system from an Intranet Web site to a laptop or desktop computer, thus reducing shipping costs for a LIMS go-kit.

Beyond savings, progress also can be seen in the rapid service and multitude of tasks performed in FY 1999:

- Successful on-time delivery rate of 97.2% for both the DISC and TLCs;
- Successful recovery rate of DISC assets of 97.9% from closed Disaster Field Offices (DFOs);
- LIMS expansion to include 44 new site codes;
- Delivery of property management training to more than 100 personnel; and
- Delivery of automated property management system training (LIMS) to 87 personnel.

Thus, not only has FEMA provided goods and services to disaster populations expeditiously, but the Agency has been very conscious in its efforts to control, contain, and avoid costs where possible.



Disaster Information Systems Clearinghouse equipment.

Getting basic necessities of life to disaster victims during the first several days of the aftermath of the disaster is priority one. Once sufficient control has been established, and the initial shock has worn off, the Agency begins the long and difficult task of supporting recovery. At this point in time, information becomes an important commodity.

NATIONAL EMERGENCY MANAGEMENT INFORMATION SYSTEM

FEMA anticipated the need for better and faster information in support of disaster response and recovery and developed the Agency's National Emergency Management Information System (NEMIS).

NEMIS is an integrated system to provide FEMA, the states, and certain other federal agencies with automation to perform disaster operations. NEMIS supports all phases of emergency management from state mitigation planning to situation assessments, providing disaster assistance, command and control, programmatic programming, emergency support, and mitigation operations. NEMIS provides users at all region, headquarters, state, and DFO locations with standard processes to support emergency management wherever a disaster occurs. NEMIS is an information resource that enables FEMA to integrate preparedness, situation assessment, Preliminary Damage Assessment (PDA), and information and planning operations with FEMA programs and disaster assistance. This enables rapid and coordinated transition from monitoring an incident to managing disaster declarations, setting up DFOs, and providing assistance to communities and individuals affected by a disaster.

NEMIS is a FEMA-wide system of hardware, software, telecommunications, and applications that provides a new technology base to FEMA and its partners to carry out the emergency management mission. NEMIS provides integrated and automated tools to support operations for Human Resources, Infrastructure Support, Mitigation, Emergency Coordination, and Emergency Support. And it provides managers with access to data and analytical tools necessary for making effective plans and decisions. In addition to providing automated support for a full range of integrated emergency management processes, NEMIS is a comprehensive effort to interface with other systems, such as the Integrated Financial Management Information System; National Flood Insurance Program database; Preparedness, Training, and Exercises systems; Logistics databases; Human Resources Management system; National Fire Incident Reporting System; and other agencies' systems.

The NEMIS enterprise database is a collection of subject area databases that are linked together to permit the comprehensive retrieval of information across the entire enterprise. Common data formats and naming conventions allow existing and future applications to share and exchange data. NEMIS provides automated

support for joint FEMA/state functions such as managing Public Assistance projects and grants, processing Individual and Family Grants, and conducting PDAs.

In addition to the states, FEMA is in close partnership with several federal agencies that provide disaster-related services. NEMIS automates aspects of these relationships, such as the process of issuing and tracking mission assignments to other federal agencies to provide disaster assistance, or for making SBA loan determinations. NEMIS also interfaces with several other federal agency systems to replace current manual ad-hoc transmission of data. More coordinated exchange of information reduces duplication of effort in providing disaster assistance and results in better customer service with coordinated federal effort.

NEMIS has allowed the Individual Assistance program to consolidate the eligibility review of Disaster Housing applications to one of three locations, and the certification and payment process to one location. In addition, the states have electronic access for reviewing and processing Individual Family Grant applications as well as the Mitigation and Infrastructure grant application process.

The consistency and timeliness of processing grant obligations and disaster housing payments has improved as a result of the interface between NEMIS and the Agency's financial management system. This single point of entry process eliminates redundant data entry into different systems and potential keying errors, and consolidates information within each database that is accessible and available to the appropriate users located at various DFOs, regions, processing centers, and headquarters locations.

NEMIS significantly improves FEMA's disaster operations, reduces operations costs, and speeds delivery of disaster benefits. NEMIS allows FEMA to perform its mission faster, more consistently, more accurately, with better management controls, and at a lower cost. FEMA has been recognized by Federal Computer Week, which gave it a Federal Top 100 Award, by Government Computer News with its Agency Award, and by favorable reports in industry publications.

DIRECT DISASTER PROGRAMS FINANCIAL INFORMATION

Disasters are a fact of life. FEMA has mitigated, prepared for, built elaborate response and recovery systems, and attempted to rationalize, streamline, and infuse cost consciousness and efficiency at every level within the organization and at every level of government. Nevertheless, the financial costs of disasters have escalated and have a direct relationship to the busiest period of disaster events in recent memory. The number of disasters have increased, as well as their severity.

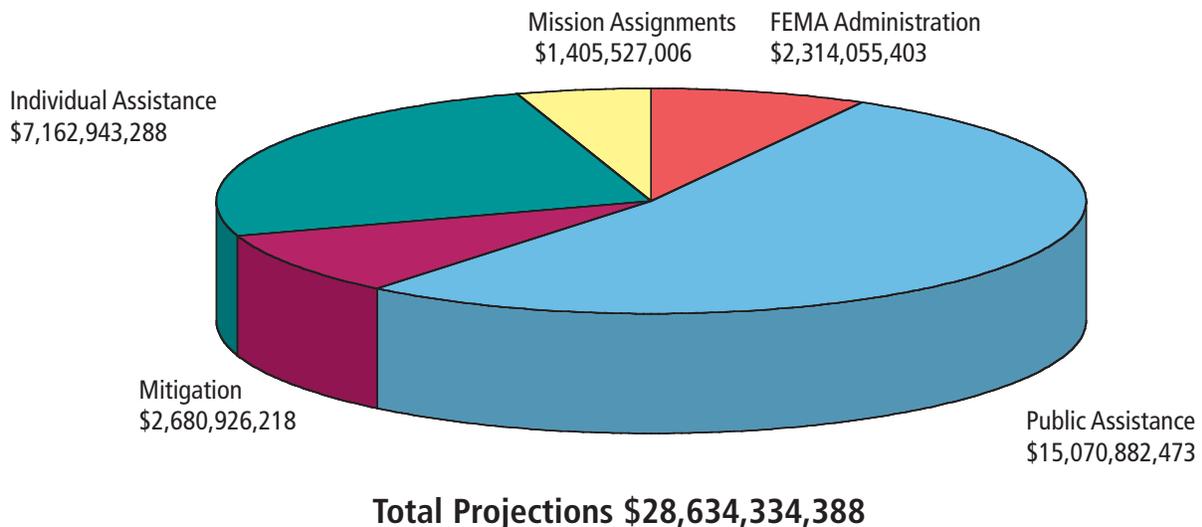
From our most expensive disaster, the Northridge earthquake of 1994, to record flooding in the Pacific Northwest in 1996 and the

Red River Valley in 1997, to the unprecedented ice storms and tragic tornadoes of 1998 and 1999, and devastating Hurricanes Georges and Floyd in 1998 and 1999, disaster relief costs reflect this historic trend of severe weather events over the past 11 years. In fact, Dr. Jack Gray, renowned hurricane forecaster at Colorado State University predicts increasingly fierce weather patterns and storms for the next 20 years, based on changes in ocean water temperatures.

Prior to 1989, only one disaster, Hurricane Agnes in 1972, cost more than \$500 million in FEMA funds. Since 1989, every year except 1991 has had at least one big disaster costing more than \$500 million. Another major factor in increased expenditures for disaster relief is the types of disasters that have been occurring. Only six major disaster declarations since 1989 were for earthquakes (one percent of the total). However, these six declarations account for 29% of FEMA's obligations from the DRF. Projected assistance resulting from the January 1994 Northridge earthquake alone is equal to 25% of all projected costs from the DRF since 1989. FEMA's cost projections for disasters declared in FY 1989-1999 total more than \$28 billion.

As the graph below indicates, more than half the projected disaster costs are in Public Assistance. Most of these projected costs are the result of the aforementioned earthquake disasters. Earthquakes generally require more costly infrastructure rebuilding, while hurricanes and floods affect greater numbers of people and require more Individual Assistance. As indicated in the graph, approximately \$2.10 is projected to be spent for Public Assistance for every \$1 spent for Individual Assistance.

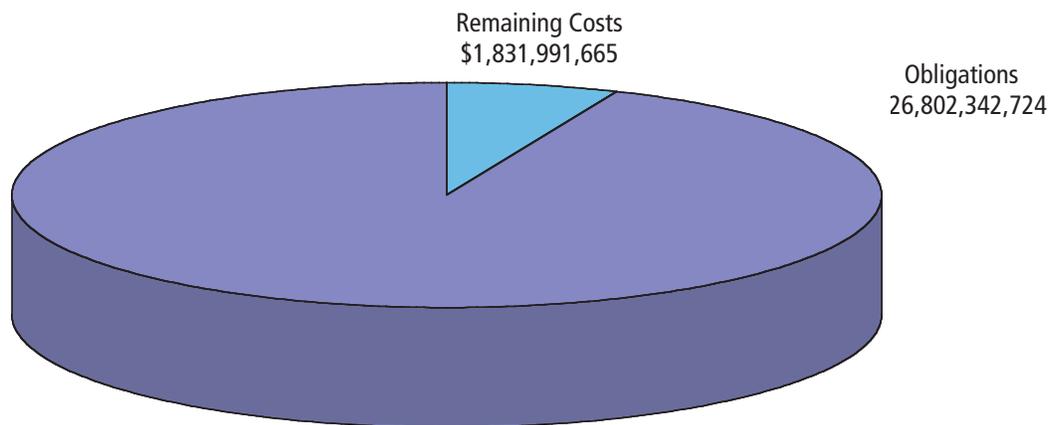
Total FEMA Cost Projections for Disasters Declared in FY 1989–1999 by Program (as of 9/30/99)



Approximately \$2.7 billion of the projected costs are to mitigate the effects of disasters and protect communities and the environment. Just over \$1.4 billion is for mission assignments to other federal agencies to provide assistance in the immediate aftermath of disasters, while more than \$2.3 billion is to administer disaster response and recovery activities.

As the next graph shows, FEMA has obligated just over \$26.8 billion of the projected \$28.6 billion for all disasters for the eleven year period, or 94% of all projected costs. Forty percent of the remaining costs are for Public Assistance programs, and 23% for Hazard Mitigation programs. Disaster costs typically were incurred during a period of years following the disaster declaration because Public Assistance projects took many years to complete. FEMA has streamlined the Public Assistance process and accelerated final cost determinations at the state and local levels so that funds are obligated to specific projects. FEMA also established a 2-year deadline for project approval and obligation of funds for post-disaster Hazard Mitigation grants. FEMA had made a priority of closing out, i.e., fully funding, all disasters declared prior to FY 1998 by the end of FY 1999. During FY 1999, FEMA reduced remaining costs by over \$1.2 billion for FY 1997 and prior disasters, leaving less than \$300 million in remaining costs for that group of disasters.

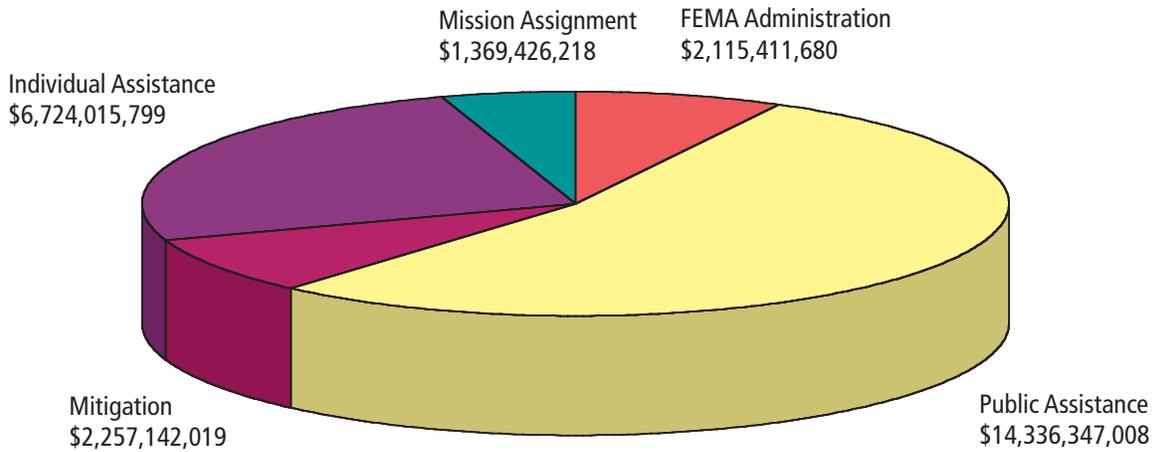
Total FEMA Obligations and Projected Remaining Costs for Disasters Declared in FY 1989–1999 (as of 9/30/99)



Total Projections \$28,634,334,389

The following graph, Total FEMA Obligations by Program for Disasters Declared in FY 1989–1999, shows the total cumulative amount obligated for each program and activity for the 11-year period. Public Assistance, at 53% accounts for the majority of DRF funds obligated since FY 1989. Individual Assistance obligations account for 25% of obligations to date, while Mitigation programs are 8% of the total. The percentage of Hazard Mitigation obligations will increase over time because the Hazard Mitigation grants usually take longer (up to two years from the declaration) to obligate.

**Total FEMA Obligations by Program for Disasters Declared
in FY 1989–1999 (as of 9/30/99)**

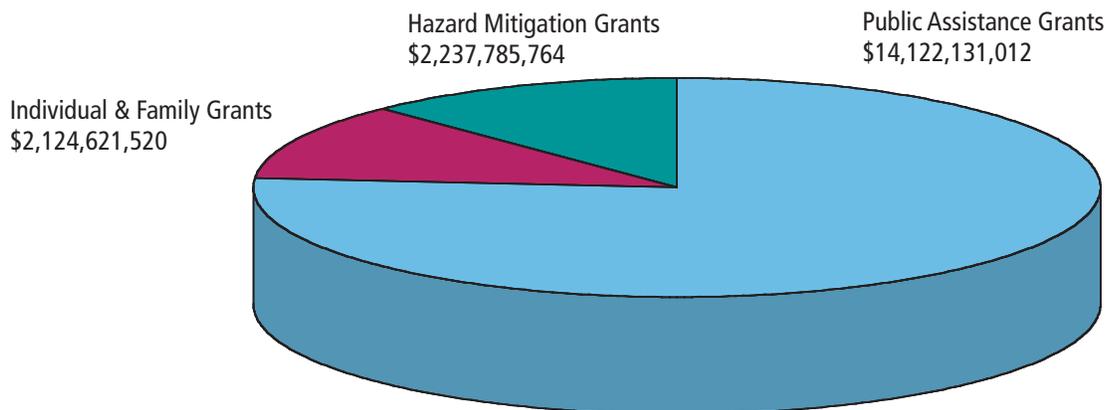


Total Obligations \$26,802,342,724

The primary vehicle FEMA uses for distributing disaster relief funds is through grants to states (and through states to local governments). These grants are for Public Assistance projects; for individuals through the Individual and Family Grant Program administered by the state to replace lost essential property; home repair; for medical, dental and funeral expenses caused by the disaster; and for Hazard Mitigation grants, to assist the state and local communities in implementing long-term hazard mitigation measures following a major disaster declaration.

As the graph Total Grant Obligations for Disasters Declared in FY 1989–1999 shows, of the \$18.5 billion in grants awarded for disasters, 76.4% of the dollars were for Public Assistance grants, 11.4% for Individual and Family grants, and 12.1% for Hazard

**Total Grant Obligations for Disasters Declared
in FY 1989–1999 (as of 9/30/99)**

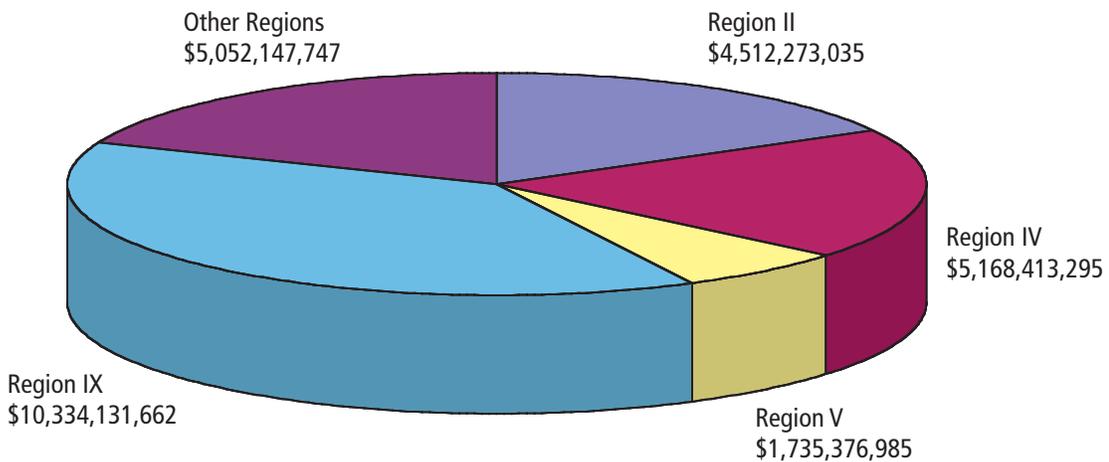


Total Grants \$18,484,538,296

Mitigation grants. The percentage of funds distributed through Public Assistance grants underscores the emphasis placed during the last several years on reengineering the Public Assistance process and the need for continuous process improvement. This graph does not include other FEMA Individual Assistance provided either through direct payment to individuals for temporary housing or minimal home repairs, or through other federal/state agencies for crisis counseling and legal services.

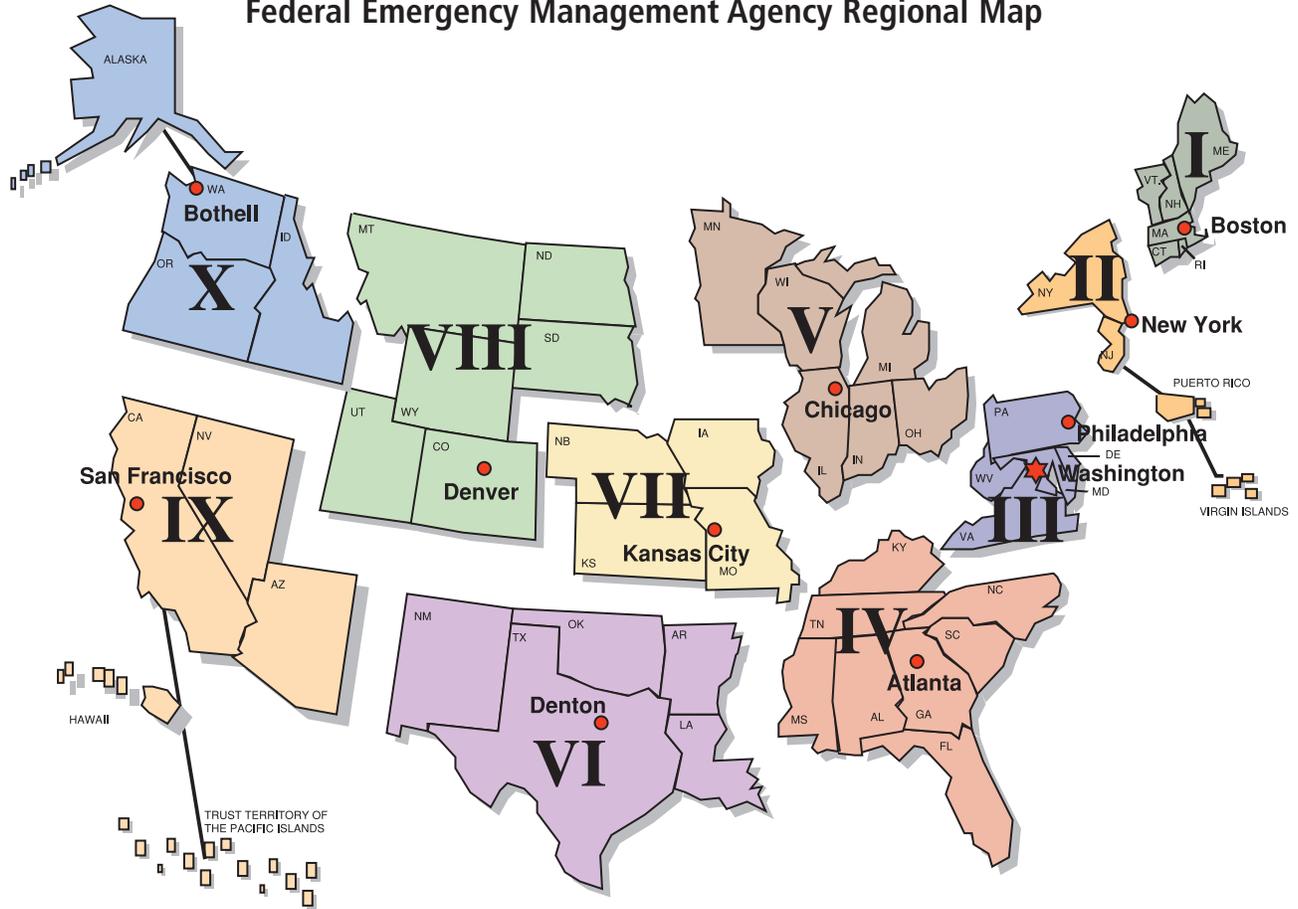
As shown below, FEMA’s Region IX accounted for 38.5% of all obligations for disasters declared since FY 1989. This was primarily the result of the Loma Prieta and Northridge earthquakes, hurricanes in Hawaii and the Pacific Islands, flooding, and numerous wildfires. Region IV accounted for 19.4% of obligations primarily resulting from hurricanes, especially Hurricanes Hugo and Andrew. Region II obligated 16.8% of disaster dollars during the period, principally because of hurricanes in the Caribbean, while Region V accounted for 6.5% owing to severe flooding in the Midwest in 1993 and 1998. The balance, or 18.8% of the obligated dollars, was distributed in the other regions of the country.

Total FEMA Obligations for Disasters Declared in FY 1989–1999 by Region (as of 9/30/99)



Total, All Regions \$26,802,342,724

Federal Emergency Management Agency Regional Map



Disasters are costly both financially and emotionally. FEMA initiated many changes during the last six years to reign in and control the costs of disasters and at the same time continue to provide better service for the people most in need—the disaster victims and devastated communities. We have documented the program and administrative improvements in the Management Discussion and Analysis section, especially pre-disaster mitigation highlighted by *Project Impact: Building Disaster Resistant Communities*.

RESPONSE AND RECOVERY DIRECTORATE

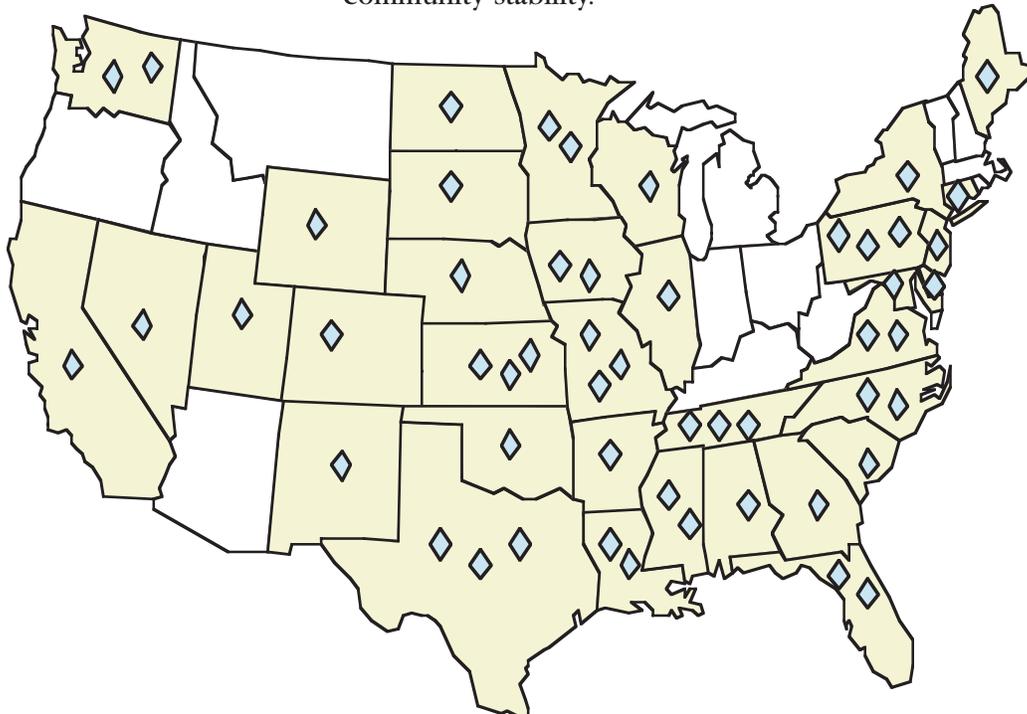
FEMA PHOTO BY SHAWN CHADWICK



FEMA's Emergency Support Team responds to Hurricane Floyd.

*R*esponse to and recovery from disaster requires the efforts of many state and federal agencies; private, public, and non-profit organizations; and individuals. Following a presidential disaster declaration, 27 federal agencies support state and local organizations through one or more of the 12 Federal Response Plan (FRP) Emergency Support Functions. Private and voluntary organizations provide goods and services to disaster victims.

FEMA coordinates and provides emergency assistance to individual disaster victims during and immediately after declared disasters. This assistance generally includes mass feeding, shelter, and medical care. All of these efforts are coordinated by FEMA's regional and headquarters staff and managed by a presidentially-appointed Federal Coordinating Officer. The combined *response* efforts assure the provision of safe water, food, and shelter to disaster victims, and assist in the restoration of basic community services, from sewage treatment to accessible roads. The *recovery* effort aids the long-range restoration of eligible facilities including public roads, bridges, and hospitals. Such efforts support the restoration of economic and community stability.



◆ Major Disaster Declarations in FY 1999 (53 Total)

HELPFUL HINTS

Avoid Fraud in Home Repairs— Steps to Take When Hiring a Contractor to Repair Damage

- ◆ Check with the local Better Business Bureau or the local business trades council to make sure the firm is licensed and has no outstanding consumer complaints.
- ◆ Get a written estimate and read the fine print. Compare the services and prices of several reputable contractors. Make sure the contractor has insurance.
- ◆ Never sign a blank contract or one with blank spaces.
- ◆ Pay with a check and avoid on-the-spot cash payments. Federal law requires a three-day cooling-off period.
- ◆ Those who have problems with a contractor are urged to contact the Better Business Bureau or the Attorney General's Consumer Protection Division.



FEMA staff take a disaster assistance application during Hurricane Floyd.

Through means such as standby resources, community outreach programs, teleregistration, information centers, and town meetings, FEMA signifies its commitment to provide, to the fullest extent that it can, support to its customers. This is accomplished by response and recovery actions to:

- Collect and provide information to the President in determining the need for a disaster declaration;
- Conduct emergency operations to save lives and property by timely positioning of appropriate emergency equipment, supplies, and personnel;
- Provide accurate, timely public information;
- Gather, analyze, and use data for the determination of applicant eligibility;
- Provide, in collaboration with FEMA partners, individual and public assistance for immediate needs and long-term recovery;
- Manage loan and grant application, approval, and disbursement;
- Assist in the restoration of communities so that individuals, businesses, and governments can function on their own;
- Manage response and recovery operations to assure compliance with laws and regulations; and,
- Provide technical assistance to states.

During FY 1999, the President declared 53 major disasters that represent a projected cost of \$2.0 billion. A total of \$751 million was obligated in FY 1999. The Major Disaster Declaration map shows the distribution of disasters nationwide. For FY 1999, most major disasters were centered in the Northeast, mid Atlantic, South, and mid-West.

DISASTER ASSISTANCE

INDIVIDUAL ASSISTANCE

After the initial disaster response, FEMA's Individual Assistance Program provides minimal repair for homes that can quickly be restored to a habitable condition, rental assistance for owners and renters whose primary residences are rendered uninhabitable as a result of a disaster, and mortgage and rental assistance for those who have received a written notice of foreclosure or eviction as a result of disaster related financial hardship.

FEMA also coordinates an array of assistance services for individual disaster victims through other federal agencies. This includes disaster loans from the Small Business Administration, tax assistance through the IRS, disaster unemployment assistance through the Department of Labor, veteran's benefits through the VA, social security benefits from the Social Security Administration, food stamps through the Department of Agriculture, insurance assistance through the State Insurance Commissioner, legal services through the American Bar Association, and consumer protection and crisis counseling through state and local entities.



FEMA employees process disaster housing applications in North Carolina.

HELPFUL HINTS

Getting Copies of Financial Records

- ◆ As recovery gets underway, you will need records or copies of your finances for short and long-term financial planning.
- ◆ If records are destroyed, call your insurance agent or company to get copies of your insurance policies, recent billing statements, cash-value statements and other applicable information.
- ◆ Contact your local credit bureau and financial institutions (banks, credit union) for copies of credit reports, loan applications, bank statements, or other such records.
- ◆ The IRS has copies of your tax records and filings for the last three years. For federal records call 1-800-829-1040.

Fiscal Year	Margin of Error	No. of Responders
FY95	+/-2%	3859
FY96	+/-1%	8641
FY97	+/-1%	6717
FY98	+/-1%	6671
FY99YTD	+/-2%	1419

FEMA serves as a clearinghouse and information dissemination contact point for these services for disaster victims. The vehicle for providing individual assistance is the application process and associated services provided by FEMA.

Program General Purpose: *Provide prompt individual assistance through an application process which offers clear, accurate information and caring personal support to disaster victims.*

Program Emphasis: *To improve Individual Assistance Program delivery over FY 1998 baselines.*

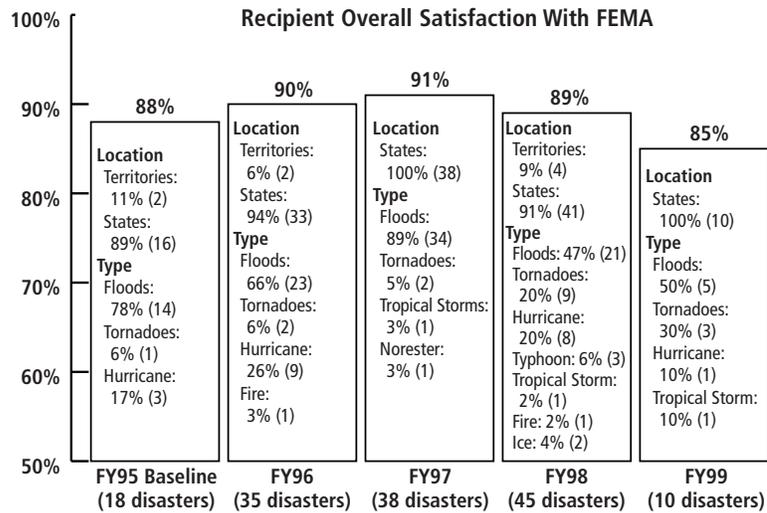
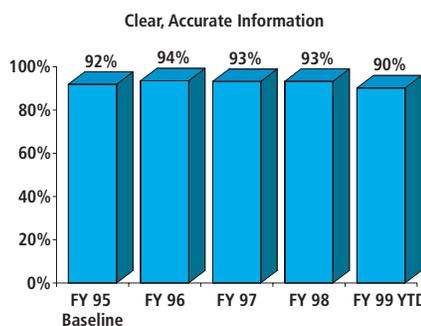
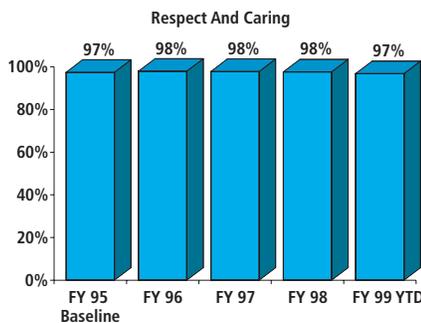
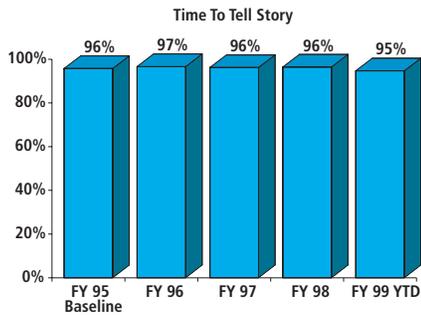
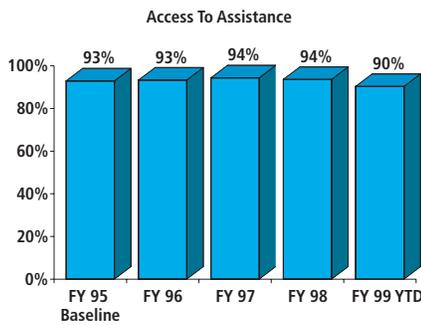
FEMA's continuing goal is to provide individual disaster victims with prompt, caring service which helps them to understand what assistance is available to them, and the process by which to apply for it. FEMA is committed to ensuring that eligible individuals have safe, habitable housing as soon as possible after the disaster, through either repair of their own homes or provision of temporary quarters. FEMA also guides victims to the network of assistance available through other federal, state, local and voluntary agencies.

Results applied against the standards below are for the 10 disasters in early FY 1999 for which we now have survey data. The full results for FY 1999 will be available in next year's Accountability Report.

Results during the first half of FY 1999 show some slight declines in many areas over the baseline and previous years. This could be attributable to a number of factors, including the use of a new processing system and the relative mix and size of disaster types experienced. During FY 1999, the Agency rolled out our new National Emergency Management Information System (NEMIS). NEMIS is the computer processing system used for processing claims. This new system has many enhancements over the old one, and will eventually result in substantial improvements in service delivery and customer service. Nevertheless, during this first year, staff were learning how to operate the system, and there were some bugs that had to be resolved. We are aware that some of these training and performance issues did impact service levels in some cases.

In addition, it should be noted that the 10 disasters for which survey data are available are an unrepresentative set. Floods make up an average of 70% of disaster types over the four previous years, with tropical systems averaging 12% and tornadoes 9%. In FY 1999 to date, floods make up only 50% of the disasters, tropical systems 20% and tornadoes 30%. This is significant because longitudinal data show that satisfaction is predictably highest for non-catastrophic flood events and lowest for the large disasters resulting from major storm systems occurring concurrently in numerous locations. We believe that the mix of disaster types, and the concentration of periods of high volume, may have affected customer satisfaction. Additional analysis is required to document these relationships more fully. The margins of error for each of the fiscal years is shown at left.

The chart below graphs overall satisfaction over the five survey years with notation of the kind and proportion of disaster types for each year.



Program Performance: The Response and Recovery performance information is organized according to customer service standards, as follows:

- ▲ To provide applicants access to disaster assistance.

Satisfaction measured for FY 1999 (year-to-date) is down three percentage points from FY 1995, the baseline year. In disasters resulting from tropical systems, even FEMA's surge capacity for assistance registration can be overwhelmed. Customers who have to wait for completion of their registration phone calls are likely to be less satisfied with this dimension of service. More experience and planned improvements to our processing supporting this function will reduce some of the cause for delay and lowered satisfaction.

- ▲ To provide disaster victims with an opportunity to tell their stories to responsive FEMA representatives.

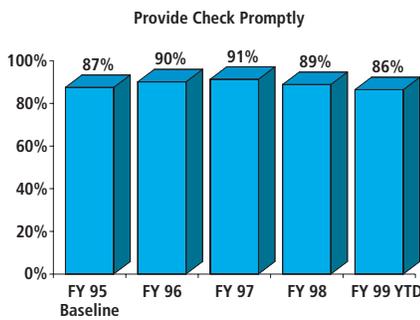
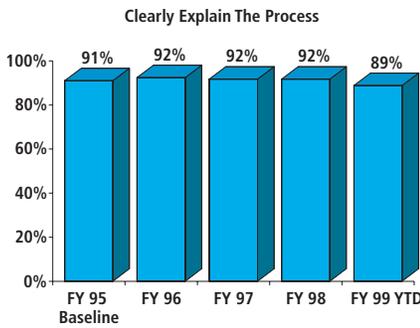
Satisfaction with this dimension of service is marginally lower than that for the baseline year and probably reflects the impact of lowered satisfaction in the tropical disasters where the numbers of customers to be served in a single time is so much higher.

- ◀ To treat applicants with respect and caring.

Satisfaction for this dimension of service is very consistent across the five survey years. FEMA staff are trained to attend to customer needs with respect and caring regardless of circumstances or service demand.

- ◀ To provide clear, accurate information about available assistance and how to apply for it.

FY 1999's rating for this performance goal is down less than two percentage points from the baseline year. FEMA is focusing efforts on ensuring this performance goal is met, understanding that the clarity and accuracy of information and the management of



customer expectations, is of paramount importance to the individual affected by disaster. It is critical that applicants understand not only the scope of possible assistance, but also the criteria for eligibility and interrelationships among assistance programs. Customer comments make it clear that the single most influential cause of customer dissatisfaction is inflated, unmet expectations.

◀ To explain clearly what eligible applicants need to do after registration, what they can expect from government agencies, and how long the process should take.

Satisfaction with this service area drops in FY 1999 from fairly consistent ratings over the previous four years. FEMA staff are seeking ways to simplify and clarify the complex assistance process which FEMA coordinates to provide the most comprehensive possible response to customer needs. Training for Teleregistration, Helpline and Inspection Services staff emphasizes the requirement to satisfy customer needs for clarity about how to pursue assistance possibilities in the confusion of a disaster situation. The impact of workload could be seen here also, since the need to surge to meet peak demands requires the use of larger numbers of inexperienced staff.

◀ To provide eligible applicants with disaster housing assistance as promptly as possible, and give them an estimate of when assistance will be received.

Responses to this question for FY 1999 showed slightly fewer customers rating receipt of assistance as meeting their expectations for promptness. Measurements of elapsed time between application and the provision of assistance show no significant changes during the survey period (in many cases, elapsed times from registration to assistance were better than in previous years). This variation in results from previous years is the result of either normal variations in statistical surveying results or the result of increasingly higher expectations by disaster victims.

PUBLIC ASSISTANCE

FEMA's Public Assistance Program provides supplementary aid to state and local governments, and certain private nonprofit organizations to help communities recover from the devastating effects of major disasters and emergencies.

State and local governments, and certain private non-profit organizations may be eligible for public assistance funding to clear debris; to implement emergency protective measures for the preservation of life and property; to repair or replace public infrastructure, such as streets, bridges, and water control facilities; to repair or replace public buildings and related equipment; to repair or restore public utilities; and to repair or restore public recreational facilities and parks.

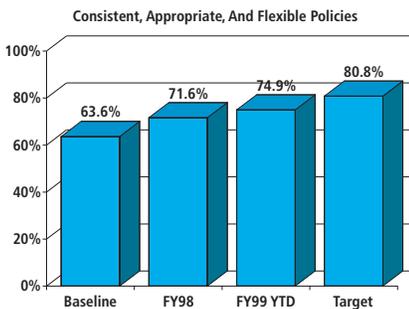
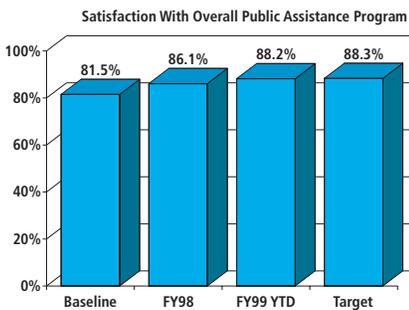
These public assistance projects are an extension of FEMA's mission to address the loss of life, human suffering, loss of income, and



FEMA's Public Assistance Program repairs damaged roads caused by Hurricane Floyd.



FEMA’s Public Assistance Program helps to remove debris caused by Hurricane Floyd.



damage or destruction of property that occur during disasters and emergencies, by supporting community efforts to restore critical lifelines necessary for the reestablishment of normal daily activities and commercial relations after such events.

Program General Purpose: *To transform public assistance into a customer driven and performance based program, thereby improving the quality and delivery of service to our state and local applicants.*

Program Emphasis: *To assist communities in recovering from disaster and improve Public Assistance Program delivery over FY 1998 baselines.*

Program Performance: The Response and Recovery performance information is organized according to customer service standards, as follows:

Customers will be satisfied with the overall Public Assistance

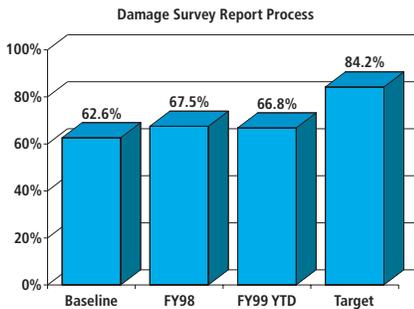
◀ Program and process.

Before work began on the redesign of the Public Assistance Program, FEMA was not fully cognizant of how our policies, programs, and procedures affected our customers—state and local governments. However, during the developmental aspects of the redesign we received valuable insights from our state and local customers/partners which led us to fundamentally shift the direction of the program. The measure of success for the newly redesigned Public Assistance Program now focuses on the applicants’ satisfaction with the new program and its processes.

The redesigned Public Assistance Program was implemented nationwide for all disasters declared on or after October 1, 1998. To date, we have surveyed 23 disasters since the implementation of the redesigned program. Our customers have indicated a high level of satisfaction with the overall operation of the program since implementation of the program last year, as the cumulative average of post-disaster surveys effectively meets our target. We hope to maintain this high level of satisfaction and to continue to improve upon the program so that we may deliver the best quality of assistance to our applicants.

◀ Customers will be issued policy that is consistent, appropriate, and flexible.

In past disaster operations, FEMA has been criticized for policies that lack flexibility as applied to different types of disasters, and for policy misinterpretation in the field during disaster recovery activities. Confusion has abounded in these situations. FEMA has recently undertaken a new policy initiative to ensure that, in future disasters, policies will be flexible to accommodate all types of disasters and that these policies will be applied consistently. This will help to measure our success in streamlining and clarifying FEMA policy for the handling of public assistance to better serve our applicants’ needs.

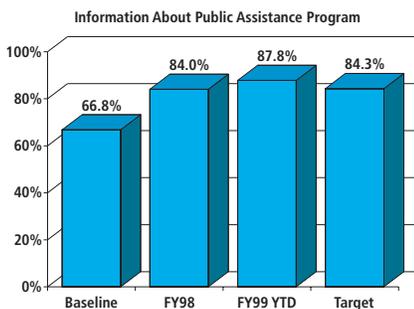


Results for FY 1999 show continued improvement in our progress toward streamlining policies and consistently applying these policies in presidentially-declared disasters nationwide. The streamlining process is a long one, and we hope that as this initiative continues, appropriate policy application and interpretation in the field will reduce the confusion previously experienced, increasing our applicants' satisfaction with this component of the redesigned program.

- ◀ Customers will be satisfied with the overall Damage Survey Report (DSR) process.

Under the old Public Assistance Program, changes oftentimes occurred during the project review stage that reduced the amount eligible for repair. Applicants were made aware of this reduction only upon final notification of their DSR(s). This led to applicant dissatisfaction with the DSR process, and with the operation of the Public Assistance Program itself. Under the new Public Assistance Program, we have replaced DSRs with Project Worksheets (PWs) and redesigned the entire damage application process. This new process is designed to establish better communication, coordination, and cooperation during the application process. In the new process, applicants participate with FEMA and state staff in the damage assessment, and are apprised of the status of their projects throughout all stages of the process.

FEMA's performance during FY 1999 decreased by approximately one percentage point. As part of the new program, we redesigned the application process to be more customer-oriented and to manage applicants' projects more effectively through the use of a case management file. We hope to increase our applicants' satisfaction in the next year by providing a higher level of assistance that includes, but is not limited to, kickoff meetings, expedited immediate needs funding, and validation of small projects. In the meantime, we will continue to closely monitor reaction to the application process and to analyze causes for satisfaction ratings.

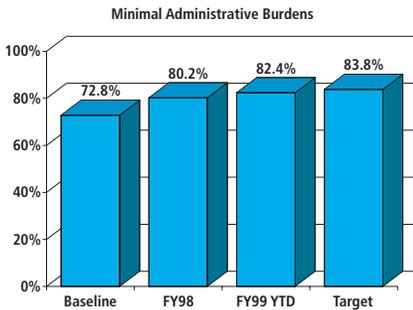


- ◀ Customers will be satisfied with the information received about the Public Assistance Program.

FEMA has not always devoted adequate resources to ensure applicants' understanding of funding processes, policies, and procedures governing the Public Assistance Program. FEMA is now strongly committed to providing better policy and guidance, and experienced and knowledgeable staff to further facilitate comprehensive and complete information dissemination to our applicants. This is the stimulus for FEMA to continue to improve in this regard.

FY 1999 survey results show a high level of customer satisfaction with this component of the new program, with the satisfaction rate exceeding the target for this performance standard by approximately three percentage points. FY 1999 was a major year for information dissemination, with the publication and distribution of several policies and guidance materials. To increase dissemination of this

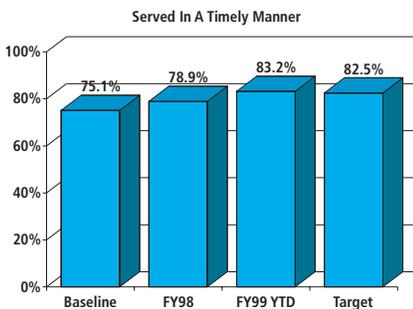
information, we also posted these materials on our Internet Web site to provide access to the general public. In addition to publishing clearer policy and guidance and distributing it to the public, we also credit our training initiative, Cadre 2000, with facilitating this dissemination by having credentialed knowledgeable staff working with applicants and available to answer their questions. We hope to maintain this level of customer satisfaction over the next several years and will be evaluating this target as necessary so that we can continue to meet our applicants' needs.



◀ Customers will have minimal administrative burdens.

FEMA requires documentation to support applicants' DSRs/PWs and to obligate funding. Many applicants have contended that FEMA asks for too much documentation and that the Agency has created an overly difficult and bureaucratic process out of simple information gathering. As part of an overall Agency effort, FEMA has streamlined the administrative processes required of applicants, thereby reducing the amount of information needed to assess applicant needs and fulfill administrative requirements expeditiously.

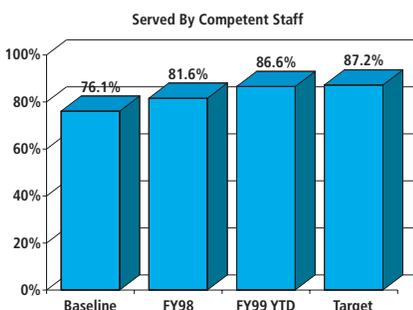
Results for FY 1999 show that FEMA has had continued success in its effort to reduce the administrative burden of our applicants, coming within one percentage point of our set target. We will continue to strive in the upcoming year to meet our target and to increase our customers' satisfaction with the administrative processes and requirements of the program.



◀ Customers will be served in a timely manner.

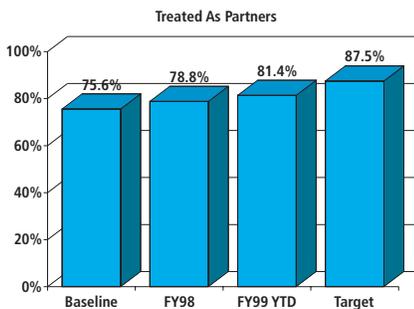
A large part of providing customer service to our applicants is in processing funding quickly so that projects are not delayed. Keeping this in mind, FEMA is committed to expediting funding to our applicants as quickly as possible without compromising the quality or integrity of the program. Speedy distribution of assistance permits the state and local governmental organizations and entities to rebuild infrastructure so that the community can return to normal as soon as is practical. It also enables FEMA to close disasters faster.

According to results for FY 1999, our customers were highly satisfied with this component of the new program, with satisfaction rates exceeding the target. With the implementation of the new program, the application process has been expedited and the timeliness in the release of disaster assistance funding has improved. These improvements have contributed to the increased satisfaction with this particular component of the program. We will continue to work to maintain this high level of performance and expedite our customers' application process.



◀ Customers will be served with minimal turnover by staff who are responsive, competent, accountable, and customer friendly.

This represents one of the major initiatives undertaken in the new Public Assistance Program. Policy interpretation, DSR/PW process,



HELPFUL HINTS

Caring for Your Family After a Disaster

- ◆ Work to get your emotional house in order.
- ◆ Keep the family together, establish normal routines, and involve children in clean up.
- ◆ Discuss problems by sharing anxiety with family and friends.
- ◆ Set a manageable schedule by making a list and do jobs one at a time.
- ◆ Listen to children by encouraging them to talk and express their feelings.
- ◆ Inform children to ease fears of the unknown by keeping explanations simple and timely.
- ◆ Reassure children by touching, holding, hugging and replacing pets or favorite toys.
- ◆ Be understanding by trying not to scold children for unusual behavior that might be a sign of stress. They're going through a tough time too.

and information dissemination are all impacted by the quality of staff implementing the new program. Customer satisfaction is largely based on the people implementing the program. FEMA is being responsive to customer needs by increasing staff availability. Staff will be knowledgeable about general operations, will be responsible and accountable for quality of work, and will conduct business in a pleasant, respectful, and professional manner.

We have continued to improve overall applicant relations during the disaster recovery process, coming within one-half a percentage point of this target. We have attributed this success to our Cadre 2000 initiative which we have begun implementing nationwide. This initiative is a means of ensuring that our customers will be served by a competent and responsive staff throughout all stages of the application and recovery process. Slated for implementation on October 1, 2000, this initiative should further increase our applicants' satisfaction and the overall operation of the new program and other individual components of the program.

◀ Customers will be treated as partners.

As well as being our customers, state governments are also FEMA's partners in the disaster recovery process. Frequently, however, during recovery activities, FEMA has not fully recognized the importance of the state's role in the overall process. Under the new program, this has changed. In addition to being considered FEMA's full and equal partner in disaster recovery, FEMA has broadened state responsibilities, enabling states to administer the Public Assistance Program for the federal government, in conjunction with FEMA. This collaboration acknowledges states nationwide as being both FEMA's customers and our partners, and will ensure they remain as such in theory and in practice.

Survey data show there has been continued movement towards our target satisfaction rate. As the roles of the state and federal government are more clearly defined and responsibilities are assumed under the redesigned program, the interworking relationship between these two entities should improve dramatically and further facilitate the disaster assistance recovery process.

CONCLUSION

The resources assigned to FEMA's response and recovery efforts are assisting individual families and communities devastated by disasters. These resources rebuild lives and communities and strengthen the bond between citizens and their government. Our disaster assistance customers tell us that we are providing high quality services in a time of need. FEMA's Public Assistance Program is maturing, and increasingly is meeting the needs of our state and local partners/clients. These constituents identified what is of importance to them and how they view FEMA's performance against these factors. Similarly, FEMA is developing additional detailed surveys to identify Individual Assistance customer levels of satisfaction and needs.

MITIGATION DIRECTORATE



FEMA's Director Witt reviews a mitigation project in a *Project Impact* community.

Mitigation actions protect life and property and reduce long term risks from hazards. Typical federal mitigation actions involve supporting local government officials' efforts to: promote the construction or siting of structures so that they have reduced chances of being impacted by disasters; to develop, adopt, and enforce appropriate building codes and land use planning standards; and to take action to correct inappropriate building designs.

Mitigation is achieved primarily through community actions, which are greatly enhanced by the support of individuals, public-private partnerships, and federal and state assistance. FEMA's strategy for mitigation focuses on making it as easy as possible for communities and their citizens to take informed and effective mitigation actions. FEMA will do this by leading a national effort to:

- Identify and improve the understanding of the nation's hazards and their risks, by community;
- Develop or improve techniques which mitigate those risks;
- Provide an environment conducive to applying those techniques;
- Provide financial and technical assistance for both pre-and post-disaster to facilitate application of those techniques; and
- Support the development of incentives and disincentives which make application of those techniques a social, political and/or economic priority.

Insurance concepts and methods also are used to reduce the nation's vulnerability to natural hazards. The National Flood Insurance Program (NFIP) is implemented so that insurance and floodplain management policies and operations are mutually reinforcing.

FEMA's mitigation strategy which focuses on partnership in the development of disaster resistant communities and institutions has four areas of focus:

1. *Federal Mitigation.* FEMA leads the effort to ensure the authorities and resources of the federal government, which affect the built environment, support to the maximum degree practicable, community-based mitigation decisions and actions.
2. *State Mitigation.* FEMA has established a collaborative mitigation partnership with states to develop criteria and incentives for the establishment of comprehensive state mitigation initiatives that marshal the resources and authorities of state governments to support community-based mitigation decisions and actions.

HELPFUL HINTS

Prepare Now for the "Next One"

- ◆ Make your home flood resistant by making all structural and environmental changes.



Project Impact brings together public, private, and non-profit sector leaders.

3. *Community Mitigation.* FEMA has established a collaborative partnership with community-level stakeholders to develop a nationwide initiative to reduce risk through voluntary, community-based, incentive-driven decisions and actions.
4. *Private/Public Mitigation Partnership.* FEMA leads an effort to identify and maximize the contributions of the private sector to the overall nationwide mitigation effort through business-driven construction and land-use decisions, as well as incentives for mitigation decisions and actions through insurance and financial market instruments.

Mitigation resources identify, assess, and reduce the nature and extent of risk for hazards such as floods, earthquakes, hurricanes, and dam failures. Of the total budget of almost \$173 million for mitigation, \$90 million is charged directly to the National Flood Insurance Fund to support floodplain management activities. An additional \$25 million is used to support *Project Impact* sites, the centerpiece of the community-based mitigation effort.

PROJECT IMPACT: BUILDING A DISASTER RESISTANT COMMUNITY

Program General Purpose: *Help communities protect themselves from the devastating effects of natural disasters by taking preventative actions that dramatically reduce disruption and loss.*

Since 1989, FEMA has spent \$27 billion from the Disaster Relief Fund to help people repair and rebuild their communities after natural disasters. That is not the total cost. Insurance companies spent additional billions in claims payments; businesses lost revenues; employees lost jobs; and other government agencies spent millions more. Worst of all is the loss that can never be recovered—human life. With *Project Impact* serving as the centerpiece of FEMA's community-based mitigation effort, FEMA is changing the way America deals with disasters.

This nationwide initiative, *Project Impact*, operates on this common-sense, damage-reduction approach, basing its planning and work on three simple principles: preventive actions must be decided at the local level; private sector participation is vital; and long-term efforts and investments in prevention measures are essential. FEMA is using all the available mechanisms to get the latest technology and mitigation practices into the hands of local communities. The incentive is clear. A disaster resistant community is able to bounce back from a natural disaster with far less loss of property and consequently much less cost of repairs.

For example, Salt Lake City passed a \$136 million bond measure that will allow Salt Lake City schools to be built to Uniform Building Code Seismic Level 4, rather than the current required Seismic Level 3. This example shows one type of long-term change made at the community level. This past year, increases of community involvement in the areas of peer mentoring, partnering, public

HELPFUL HINTS

Protect Your Home from Future Damage

- ◆ Prevent damage to basement utilities by elevating them at least 12 inches above base flood level (consult local building officials).
- ◆ Relocate electrical panel boxes, circuit breakers wall switches and outlets 12 inches above base flood elevation.
- ◆ Septic back-flow valves installed by a licensed plumber can prevent sewage backup.
- ◆ Install a floating floor drain plug at the lowest point of the lowest finished floor to allow water to drain.
- ◆ Anchor heating fuel tanks to prevent them from floating, overturning, or breaking loose in a flood. Metal supports and fasteners should be non-corrosive, and wooden supports pressure treated.

outreach, technical assistance, training, media/public awareness, mitigation activities, and risk assessment are setting the stage for building long-term commitment and permanent change towards disaster prevention. Indeed, FEMA estimates that for every dollar spent in damage prevention, two are saved in repairs.

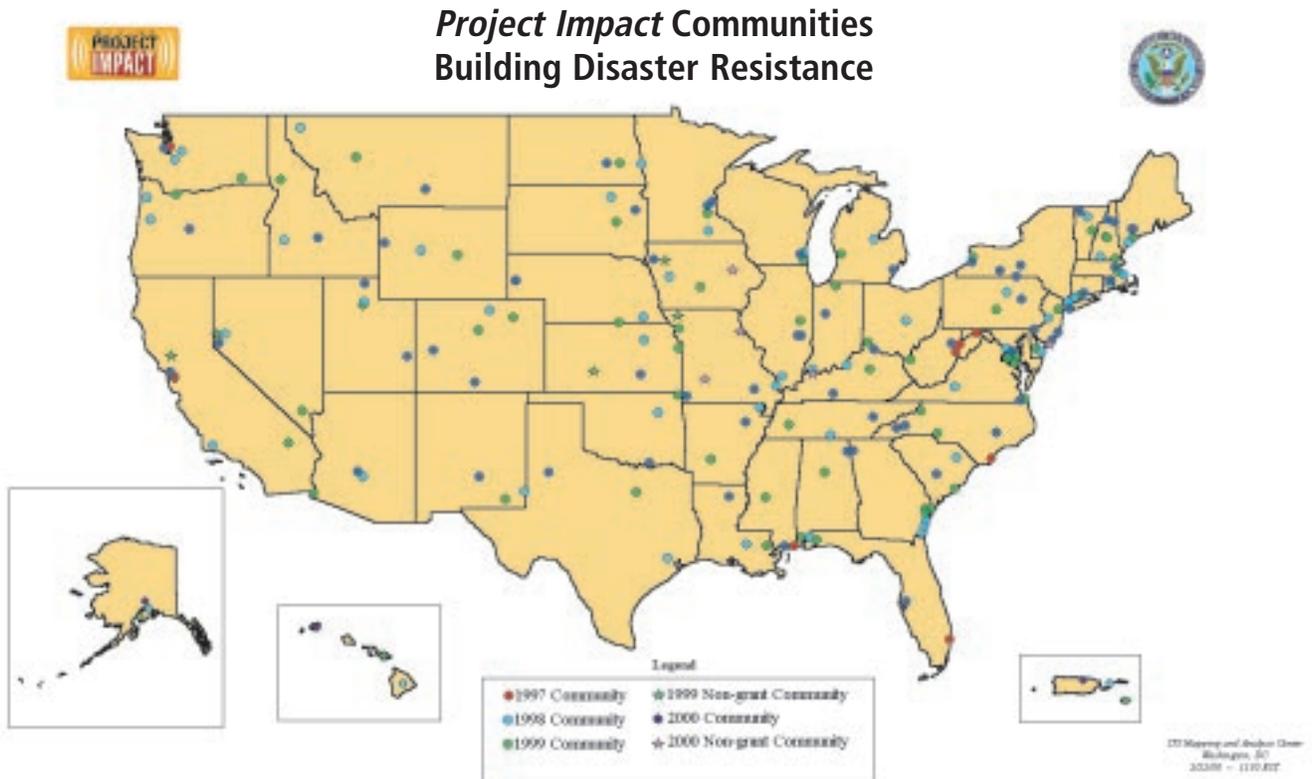
FEMA established two goals for *Project Impact* for FY 1999:

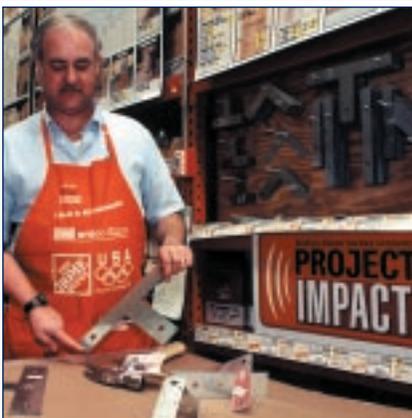
1. To increase the overall FY 1999 *Project Impact* communities by at least 50 beyond the 57 identified in FY 1997-1998; and
2. To build disaster resistance in each of these communities.

FEMA recognizes that federal resources must be leveraged with those of the private sector as well as state and local resources to build disaster resistant communities. FEMA realized from the outset that public/private national and local partnerships as well as intergovernmental partnerships were the only sensible approach to building disaster resistant communities.

Program Emphasis: *Increase the overall FY 1999 Project Impact communities by at least 50 beyond the 57 identified in FY 1997-1998.*

Program Performance: Sixty-three additional jurisdictions signed agreements to become *Project Impact* disaster resistant communities in FY 1999, increasing the total number to 120 communities.





Retail home building and supply firms are *Project Impact* partners.



Program Emphasis: *Build disaster resistance in each of these communities.*

Program Performance: One of the ways we have sought to build disaster resistance is by increasing FEMA guidance, training, and technical assistance for *Project Impact* communities. Eighty individuals from *Project Impact* communities and their state governments attended four *Project Impact* building consensus courses designed to equip *Project Impact* communities with tools and technical guidance. More than 118,000 *Project Impact* brochures and 12,000 guidebooks were requested. Thirteen new *Project Impact* communities requested peer technical assistance and guidance from successful, more experienced communities through site visits, meetings, teleconferences, and partnership development activities. More than 500 individuals from local, state, and federal organizations and businesses attended the *Project Impact* Summit to learn from each other. Six hundred and twenty-five thousand (625,000) hazard information site maps were created since June 1999 for those visiting the *Project Impact* Web site.

Program Performance: National business partners are instrumental in communicating and focusing attention on *Project Impact* and in building disaster resistance in these communities. Below are summaries of the national partnerships:

On November 10, 1998, the Associated Builders and Contractors (ABC), and FEMA signed a partnering agreement to help promote *Project Impact*. ABC will provide national recognition for members who have taken a visible lead role in promoting disaster resistance. ABC will also utilize their national base of construction experts to provide lists of quality contractors in each *Project Impact* community. ABC will highlight *Project Impact* success stories nationally. And ABC will help FEMA build relationships with other construction industry associations.

Michael Baker Jr., Inc., a subsidiary of Michael Baker Corporation, is partnering with FEMA to spread the message of disaster prevention. For its employees, Baker offers free determinations to see if homes are in the floodplain, and also reimburses a portion of the first-year flood insurance premium. Baker sponsored a Chief Executive Officer roundtable breakfast bringing FEMA Director Witt together with corporate leaders in Pittsburgh, PA where Baker is based. Most recently, FEMA approved Baker's use of historic disaster records to create and print posters and flyers showing the widespread impact of disasters across the United States.

Bell Atlantic recognizes the importance of disaster recovery, and last year created an organization—Bell Atlantic CommGuard(R)—designed to help mitigate the impact of a disaster on government and business. By taking part in *Project Impact*, Bell Atlantic will have the opportunity to share their mitigation experience and expertise with FEMA and its pilot disaster-resistant communities.



BellSouth, a \$21 billion communications services company that provides services to more than 30 million customers in 20 countries worldwide, has joined FEMA's *Project Impact* initiative to help reduce the effects of natural disasters on local communities. As part of its commitment to the national program, BellSouth is holding seminars to educate customers and businesses on ways to protect themselves from unexpected disasters ranging from severe weather conditions to common human error and technology crashes.

CPE



FEMA has joined in partnership with Contingency Planning Exchange (CPE) to develop the *Project Impact* CPE Partnership Consultant initiative that will be available to all *Project Impact* communities to help business and industry be better prepared.

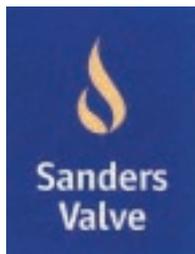
Environmental Systems Research Institute, Inc. (ESRI) has formed a national partnership with FEMA aimed at providing multi-hazard maps and information to U.S. residents, business owners, schools, community groups, and local governments via the Internet. The information provided is intended to assist in building disaster resistant communities across the country by sharing geographic knowledge about local hazards. ESRI is also providing grants and technical assistance to several *Project Impact* communities to advance their abilities to use spatial data.

Fannie Mae



Fannie Mae and FEMA have established a partnership to offer special loans for residential homeowners that will be dedicated solely to protecting America's homes from hurricanes, floods, earthquakes, and other natural disasters. The loan program will fund construction projects such as replacing roofing with fire-resistant materials, waterproofing the exterior walls of a home, and reinforcing the foundation of a home.

The National Association of Broadcasters in partnership with FEMA, the American Red Cross, and the Salvation Army, will develop a disaster relief and damage prevention resource guide in support of *Project Impact*. NAB's disaster resource guide will offer radio and television stations ideas on how to develop coverage and provide education about disaster prevention and post-disaster relief in local communities. The guide will include news and other programming ideas, script public service announcements, and community outreach suggestions.



Sanders Valve Corporation, a developer of energy-safe products for the natural gas and propane industry, has formed a national partnership with FEMA to provide damage-prevention products for *Project Impact*. Sanders Valve Corporation will provide *Project Impact* communities with the Sanders Safety Cut-Off Valve—a device designed to reduce the risk of loss of property and life by immediately shutting off the flow of gas whenever there is a break in the fuel line due to natural or man-made disaster.



Solutia Inc. has made a commitment of \$200,000 in materials and labor towards the retrofitting of commercial and residential structures in selected hurricane-prone communities nationwide. Solutia will provide their new hurricane resistant KeepSafe Maximum glass along with technological and information support. KeepSafe Maximum glass is an impact-resistant laminated glass that will not shatter and fall out upon impact. If struck by hurricane windborne debris, the glass may crack, but the broken pieces will adhere to the plastic interlayer, keeping the glass intact within the frame.



Strohl Systems, the global leader in continuity planning software and services, is uniquely qualified to support *Project Impact*. This King of Prussia, PA based organization has helped thousands of organizations, including businesses, government agencies, and institutions, develop and maintain thorough, actionable disaster recovery and continuity plans. Strohl Systems is the first continuity software provider to participate in FEMA's *Project Impact* initiative. All of the "non-grant" *Project Impact* communities were provided free software.



Visa and FEMA will launch a joint public awareness campaign for disaster prevention and the purchase of flood insurance. Visa is leading the way for corporate participation with a financial contribution that will be the first of its kind for *Project Impact*. As part of Visa's partnership, the company will make a financial contribution to the *Project Impact* Community of the Year Award winners—Tulsa, OK and Berkeley, CA, to further their disaster-resistance efforts.



NBC-4 Washington has agreed to serve as broadcast pilot partner to further mutual loss-reduction goals as a part of the *Project Impact* initiative. NBC-4 will make their representatives available to consult with FEMA on ways in which the *Project Impact* initiative can be improved and applied successfully to other jurisdictions. The television broadcaster will publicize and promote *Project Impact* on a regional basis; conduct an all-hazards public awareness campaign which emphasizes mitigation activities and preparedness for natural hazards; and at the conclusion of the pilot phase, will encourage the participation of other NBC-owned and affiliate organizations in the *Project Impact* initiative.

ICC

In September 1999, a partnership agreement was signed with International Code Council (ICC) to support development, maintenance, adoption, and enforcement of building and construction codes to promote health, safety and welfare throughout the country and to reduce human and economic losses resulting from natural hazards.

Program Performance: Recruiting local businesses to be *Project Impact* partners is vital to success in building disaster resistance in communities. *Project Impact's* local business partners represent the segments of the business community that we would expect to be interested in building disaster resistant communities. Many non-profit



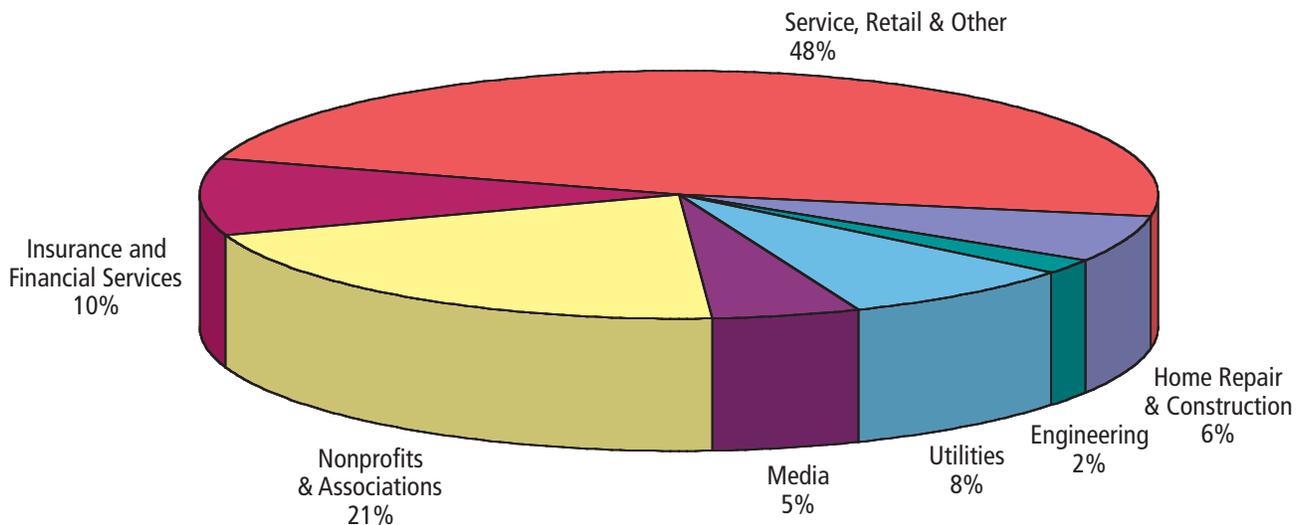
The Salvation Army is a *Project Impact* partner.

organizations and associations are active supporters of the initiative such as local Chambers of Commerce, remodelers, builders, and real estate associations representing many business interests within the community. Insurance and financial services are actively involved as partners given their direct participation in financial aspects of protection of the community's and individuals' assets.

Home repair and construction businesses provide expertise and experience in dealing with the affects and aftermath of disasters and can provide expertise in fortifying structures to withstand the affects of disasters. Engineering and technical consulting companies provide a unique expertise that is usually called upon after disaster strikes but can be even more valuable if used in a preventive sense. Public utilities are the community's lifeline and their participation can add immeasurably to educating the public in how to protect themselves and their property. Media partners are instrumental in public information and education. Collectively, the multiplicity of business partners can strengthen a community's resistance and lessen the impact of disasters.

FEMA has recruited close to 2500 businesses at the national and local levels to be partners in building disaster resistant communities by the end of FY 1999. The increase in the service, retail and other category in FY 1999 versus FY 1998 shows a broadening of the spectrum of businesses that are now participating in the effort. We expect this number to increase as *Project Impact* sites mature and new communities get underway.

***Project Impact* Local Business Partners**



REPETITIVE LOSS INITIATIVE

Program General Purpose: *To reduce disaster relief expenditures and reduce the flood insurance subsidy to owners of structures that have experienced repetitive flood losses.*



The Repetitive Loss Initiative is designed to remove structures from harm's way.

To reduce the disaster relief expenditures to communities that are mired in a damage-repair cycle, a critical goal of FEMA is to reduce the flood insurance subsidy to the owners of structures that have experienced repetitive flood losses. Repetitive loss structures are estimated to be about 43,000 buildings that have had 2 or more losses under the National Flood Insurance Program (NFIP) in any 10-year period, and which are currently insured by the NFIP. FEMA will target for mitigation 10,000 of these repetitive loss structures that have had 4 or more losses, or 2 or 3 losses which cumulatively exceed building value, and which offer the greatest cost-benefit, by acquiring, relocating, elevating, or flood-proofing those structures.

Because repetitive loss structures have the most severe risk of flooding, mitigation for them is highly cost-effective. These 10,000 buildings are responsible for almost \$65 million of the \$200 million in NFIP claims estimated to be paid annually for repetitive loss buildings. Since these buildings were generally built prior to the inception of the NFIP, the policyholders pay premiums that, by law, are substantially less than full risk premiums.

FEMA's strategy to reduce repetitive losses also includes other proposals:

- Flood insurance should not be available to homeowners who have filed two or more claims that total more than the value of their home and refuse to accept offers of assistance to elevate, relocate, or acquire their home; and
- Enlist the active participation of state and local elected officials and floodplain managers and encourage them to take some responsibility to cut repetitive losses.

FEMA focused the use of its Hazard Mitigation Grant Program (HMGP) to mitigate damages to repetitive loss buildings. Data on repetitive loss buildings was provided to State Hazard Mitigation Officers and other state and local agencies. FEMA has challenged states to address repetitive losses using HMGP funds.

Program Emphasis: *Complete the development of the multi-year repetitive loss strategy for the National Flood Insurance Program and begin implementation of the strategy using existing program authorities.*

Program Performance: The repetitive loss strategy was completed and implementation has begun, as follows:

- The addresses and claims history of the repetitive loss buildings have been provided to state floodplain and emergency managers for their use in mitigation planning so they can locate the properties and verify the status of the property;
- State emergency management agencies have been encouraged to direct Hazard Mitigation Grant Program funding toward mitigating losses to target buildings;
- States have been directed to spend Flood Mitigation Assistance Program funding first on mitigation projects for target buildings and then on other cost effective buildings;

States With The Most Target Repetitive Loss Properties		
	Number	Percent
Louisiana	3,086	31%
Texas	1,351	14%
New Jersey	964	10%
Florida	576	6%
New York	498	5%
Missouri	462	5%



FEMA PHOTO BY SHAWN CHADWICK

Mitigation is a means of taking action to lessen or prevent damage from a disaster.

- Target buildings have been ranked based on the number and severity of losses and that information made available to states;
- A proposed rule, published in the *Federal Register* provides that flood insurance for a property will only be renewed or re-written at full risk premium when a target building is offered mitigation assistance through a program funded by FEMA and the offer is declined; and
- A Special Direct Facility (SDF) has been established to manage flood insurance policies and claims for the target buildings. The policies will be placed in the SDF beginning in FY 2000. This will allow FEMA greater control in providing insurance, adjusting losses, gathering risk information and tracking offers of mitigation assistance.

Although progress can be made in reducing repetitive losses by redirecting existing programs, current funding levels are not adequate to mitigate the target buildings in the four-year period envisioned by the strategy. Efforts have been made and are underway to seek additional sources of funding.

◀ **Program Emphasis:** *Develop a ranking system for the target repetitive loss properties to identify the highest risk structures.*

Program Performance: The 10,000 target repetitive loss properties have been ranked through a ranking system developed in cooperation between the Mitigation Directorate and the Federal Insurance Administration. The top 500 target repetitive loss properties have been identified and the information has been distributed to the states and FEMA regions so they can begin to focus existing mitigation program funds to acquire, relocate, or elevate the structures. The ranking is based on the projected average annual damages as a percent of building value. Additional data will be gathered on the target repetitive loss properties and the ranking will be refined as this data is compiled.

HAZARD MITIGATION GRANT PROGRAM

Program General Purpose: *To reduce disaster assistance costs through hazard mitigation.*

To reduce disaster assistance costs, one of FEMA's primary approaches is to emphasize hazard mitigation through various incentives. Mitigation consists of taking measures to prevent future losses or to reduce the losses that might otherwise occur from disasters. Authorized by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Hazard Mitigation Grant Program (HMGP) provides grants to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. FEMA can fund up to 75% of the eligible costs of each project. Eligible applicants are state and local governments, Native

American tribes, and certain non-profit organizations. The state or local government pays the remaining portion of the costs.

In the past, the process has taken considerable time, sometimes several years from the date of disaster declaration to approval and completion of projects. The process is complex involving determination of scope of work, environmental review, and cost effectiveness determination. Both the Congress and FEMA agreed the program needed to be streamlined and funding needed to be expedited to complete projects in a timely manner to protect communities from future disaster losses.

FEMA has made considerable progress in streamlining the program. The Agency published a final rule that reduced the number of HMGP appeal levels from three to two. The Agency introduced a Managing State Concept, which was pilot tested in Florida, Ohio, and North Dakota. Under the concept, states assume virtually full responsibility and authority reserving those actions required by law to FEMA. States have greater autonomy in eligibility reviews, cost-effectiveness determinations, and preparation of environmental documentation as mutually agreed upon. The changes in roles and responsibilities are intended to promote faster approval of projects and thus make it easier to meet the programmatic goal of obligating funds within 24 months of the disaster declaration. An interim evaluation of the Managing State Concept yielded positive results. If final evaluation results are consistent with the interim findings, FEMA will set forth plans to expand the concept to other states.

We delegated authority to approve environmental assessments from FEMA headquarters to Regional Environmental Officers, removing duplicative and time consuming documentation review. This significantly reduced the amount of time it takes to approve projects. FEMA also expanded the list of projects that can be categorically excluded under the requirements of the National Environmental Policy Act.

To assist states and communities to more effectively implement and manage the HMGP, FEMA published the *Property Acquisition Handbook for Local Communities*, including the Property Acquisition Toolkit and is in the final stages of finalizing a HMGP Desk Reference. A HMGP grants management course was developed with assistance and input from state and FEMA program and financial managers. This course is a new tool for state program managers to increase their knowledge and skills to implement the program more effectively and efficiently. Another training course, Managing the HMGP for States, is under development and testing that emphasizes programmatic issues and is designed to complement the grants management, cost-effectiveness, and environmental courses that are already available.

To encourage creativity and innovation, FEMA established a 5% set-aside for states to fund mitigation measures that are difficult to evaluate against traditional program cost-effectiveness and eligibility

criteria. The Agency issued a policy clarifying existing timelines under HMGP, which included a 24 month deadline for obligating funds for all open disasters. FEMA issued policy to make HMGP funds available statewide for declared disasters rather than only in declared counties to emphasize and encourage pre-disaster mitigation, a major strategy. To more effectively monitor and track HMGP projects, FEMA program management integrated the HMGP database into NEMIS.

Hazard Mitigation Grant Program

Estimated Dollars Available Versus Obligations
by Fiscal Year of Disaster Declaration
(Expenditures as of September 30, 1999, FY99 Year End Data)

	Estimated Total Dollars Available	Total Dollars Obligated to the State	Percent Obligated
FY 1989	50,197,168	50,197,168	100%
FY 1990	77,599,177	77,599,177	100%
FY 1991	18,419,203	18,222,783	98.93%
FY 1992	56,171,725	56,171,725	100%
FY 1993	199,206,402	197,553,830	99.17%
FY 1994	905,573,192	851,350,508	94.01%
FY 1995	174,029,676	172,583,979	99.17%
FY 1996	299,513,617	276,031,994	92.16%
FY 1997	228,401,858	215,487,634	94.35%
FY 1998	430,214,208	305,815,749	71.08%
FY 1999	215,748,292	16,771,217	7.77%
Totals	2,655,074,518	2,237,785,764	84.28%

The figures reflected in this report are projections as of 9/30/99 and are subject to change.

Program Emphasis: *Streamline the delivery of Hazard Mitigation Grant Program funds to states and territories.*

Program Performance: Considerable progress was made during the last three years in making funds available to states (obligating dollars) to spend on mitigation projects. The table above shows the estimated dollars available versus obligations by fiscal year of the disaster declaration since the inception of the program, FY 1989-1999.

At the end of FY 1999, FEMA had obligated 84.3%, or \$2,237,785,764 of the total \$2,655,074,518 made available to states for mitigation projects.

FLOOD HAZARD MAPPING

Program General Purpose: *Reinvent the floodplain mapping program and increase the use and effectiveness of mitigation information and tools provided to communities so that they may become more disaster resistant.*



Prior to the creation of the NFIP, the public could not buy flood coverage from insurance companies because of the uncertain risk. There was no national flood mapping program, and there were no federal minimum standards for floodplain management designed to reduce losses over the long-term. Thus, Congress created the NFIP with the National Flood Insurance Act of 1968. The NFIP, administered by FEMA's Federal Insurance Administration (FIA), is a partnership whereby the federal government provides insurance against property losses from flood damages to property owners in communities that agree to adopt and enforce minimum federal floodplain management criteria. The criteria are designed to minimize future flood damages to existing and new structures.

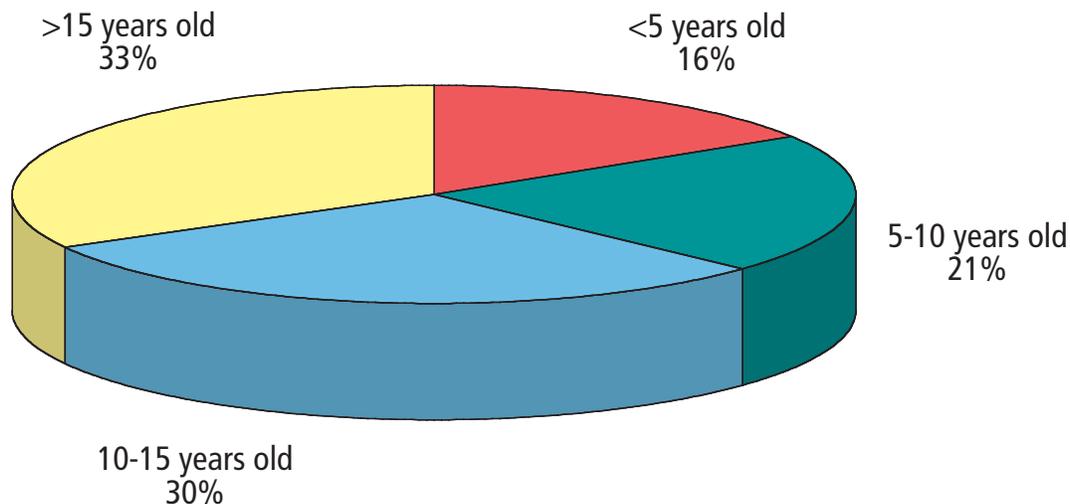
Buildings built to NFIP minimum standards sustain 77% fewer losses than buildings that were not built to such standards. It is estimated that each year community floodplain management ordinances prevent over \$770 million in damage to buildings and their contents. These local floodplain management ordinances are based on the flood maps produced by FEMA. The maps identify the Special Flood Hazard Areas—the areas having a one-percent or greater chance of flooding in any given year. The flood maps are intended primarily to support the NFIP for insurance claim information, floodplain management and repetitive loss use, and flood hazard identification purposes. However, they are also the foundation for many other FEMA programs: Public Assistance, to identify appropriate flood mitigation measures to pursue when providing federal grants to repair infrastructure; the Hazard Mitigation Grant Program, to ensure an accurate benefit/cost analysis for these investments; *Project Impact*, because the first step in becoming disaster-resistant is knowledge of a community's risks for natural disasters; and the Hurricane Program, for use in evacuation studies. These programs rely on the maps in their development of comprehensive and effective flood loss reduction measures.

WHERE WE'VE BEEN

In FY 1997, FEMA found that the Flood Hazard Mapping Program was at a critical juncture. Since its inception in 1968, the NFIP had been engaged in a massive and unprecedented task—a nationwide assessment of flood hazards. The accomplishments were impressive. Over 100,000 map panels had been produced for nearly 19,000 communities. The net effect of this effort was that citizens' lives, properties, and personal finances had been protected through an insurance mechanism for those at risk and flood hazard data to minimize the flood risk for new development. However, certain deficiencies and limitations of the flood maps and the flood mapping program were evident.

Although we have made tremendous progress toward resolving these problems today, the general situation still exists. The flood hazard maps are aging. In FY 1997, approximately 45% of the maps were at least 10 years old, and 70% were 5 years or older. Today,

Figure 1: Age of Effective Map Panels



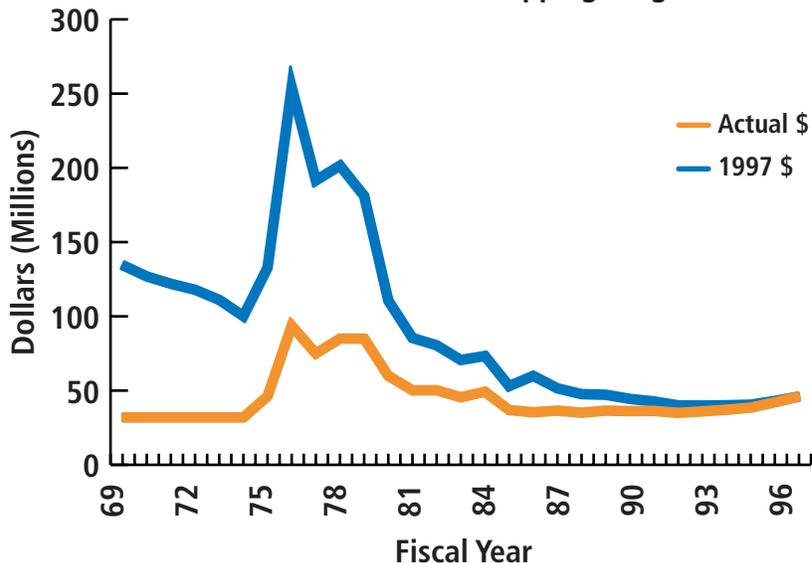
approximately 63% of the maps are at least 10 years old, and 84% are 5 years old or older (see Figure 1).

The effect of the aging is that many of the maps are inaccurate. Flood hazards are dynamic—general watershed development over time increases runoff and the flood hazard. Also, previously undeveloped areas experience new development and, thus, require more detailed flood hazard analyses. In addition, there are flood-prone communities and flooding sources nationwide that are unstudied, even by approximate methods. Yet, the effectiveness of all flood hazard mitigation activities depends on the availability of up-to-date, accurate, and detailed flood hazard information. The maps are also limited in their utility, and the entire inventory must be converted to digital format to enable automated applications.

In spite of the problems of the aging map inventory, the uses for the maps have broadened considerably over the years. Each of the 15 million mortgages transacted each year and every building permit issued over 19,000 communities participating in the NFIP requires the use of the flood hazard maps. They are most frequently used by insurance companies and agents, lenders, property owners, flood map determination firms, and real estate professionals as part of the mortgage transaction process. However, they are also used by floodplain managers, community planners, surveyors, engineers, and disaster and emergency response officials for mitigation, risk assessment, and disaster preparedness, response, and recovery activities.

Funding for updating and maintaining the maps comes almost exclusively from flood insurance policyholders, and from requests for printing and distributing the maps and engineering back-up data. Although all property owners and taxpayers benefit through

Figure 2: Historical Budget for FEMA's Flood Hazard Mapping Program



reduced disaster expenditures, the level of funding has been inadequate to maintain an up-to-date mapping inventory, as shown in Figure 2 above.

Approximately \$1.2 billion (\$2.8 billion in FY 1999 dollars) has been spent to date. Current funding levels are inadequate to resolve the present and projected mapping needs of the flood mapping inventory.

In 1997, FEMA saw that emerging technology could help resolve many of the problems of the Flood Hazard Mapping Program; however, modernizing the program would require a plan and adequate funding. To meet the challenges facing the program in FY 1997, FEMA designed a modernization plan. The cornerstones of the plan are to use state-of-the-art technology to cost effectively:

- Develop accurate and complete flood hazard information for the entire nation;
- Provide that information in a readily available, easy-to-use format; and
- Alert and educate the public regarding the risks of flood hazards.

From the beginning, FEMA sought critical and analytical input for the flood map modernization plan from all users of the maps, but especially from members of the congressionally mandated Technical Mapping Advisory Council, who served as advisors in the development of the plan and continue to provide valuable feedback as the plan evolves. The Council members, who represent various map user constituencies, provided their expertise and guidance to ensure that the plan will meet the expectations of the map users. FEMA's flood map modernization plan has also received widespread and enthusiastic support from 14 other agencies and organizations nationwide that use flood maps.

WHERE WE ARE

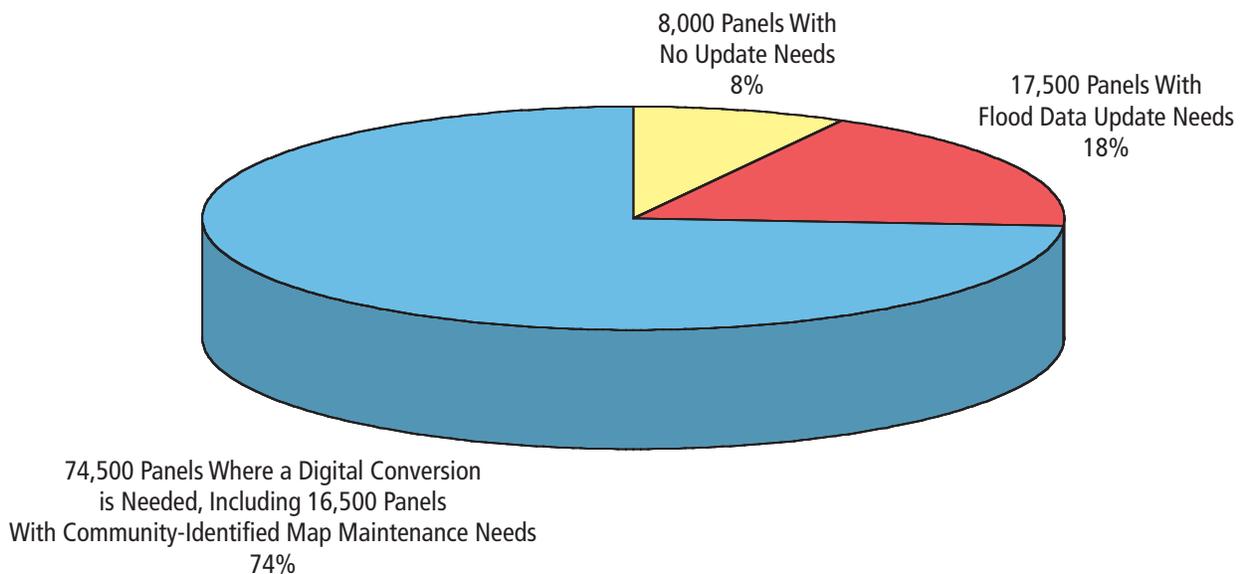
Since the modernization plan was designed in FY 1997, it has continually evolved as new products, processes, and technical specifications have been developed and implemented within present funding levels. Today, the plan is considerably more specific than it was in FY 1997. Now it involves a 7-year upgrade to the 100,000-panel flood map inventory and an enhancement of products, services, and processes.

The integration of the map modernization plan into the Flood Hazard Mapping Program will result in:

- Reduced potential for loss of life and property;
- Increased flood insurance policy base;
- Reduced NFIP costs;
- Reduced disaster costs;
- Premiums commensurate with risk;
- Meeting of legal mandates (conversion of maps to metric as per Executive Order 12770, Metric Usage in Federal Government Programs); and
- Protection of the natural and beneficial values of floodplains.

The Mapping Needs Assessment process has given us a more complete picture of mapping needs. Through this process, the flood hazard map for each community is evaluated for update needs at least once every five years. FEMA has contacted all of the approximately 18,500 mapped NFIP communities to request information about local mapping needs. Based on analysis of these responses, we project the map update needs shown in Figure 3.

Figure 3: Map Needs Assessment



Significant progress has been made on an objective relating to our processes. Through the Cooperating Technical Community (CTC) initiative, partnerships are being formed with communities, states, and/or regional agencies to fully integrate them into FEMA's flood hazard mapping process. FEMA will maintain its national standards for NFIP mapping while building on local mapping knowledge and capabilities. This collaboration will make more resources available for flood hazard data collection and mapping efforts nationwide. In FY 1999, FEMA entered into 29 CTC Partnership Agreements with local, state, and regional agencies across the nation.

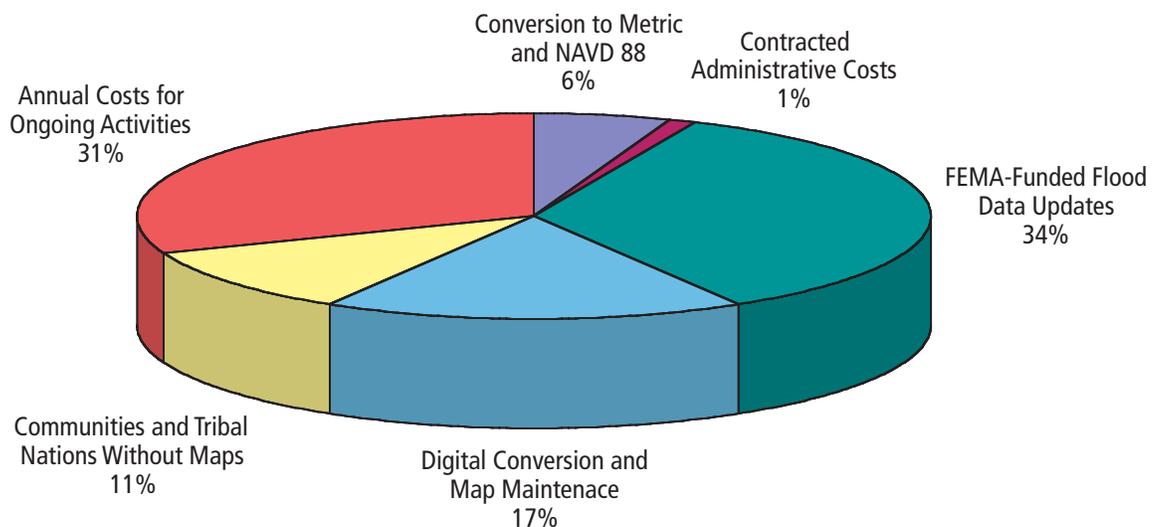
Although CTC Partnership Agreements support FEMA's flood mapping activities, it is important to note that funding allows only 2 to 3% of the maps to be updated each year, while 4% of the maps become outdated each year. In addition, the backlog of maps with outdated flood data is already approximately 17.5% of the flood map inventory.

WHERE WE'RE GOING

The various map modernization objectives have led to a vision of an enhanced process for updating the maps. This process will:

- Increase state and regional agency and community involvement in the mapping process, particularly through the CTC initiative;
- Develop tailored approaches in individual communities that build on the strengths of participants in the mapping program. The effective use of partnerships will enable FEMA to maximize the capabilities and resources of other stakeholders in a cost-efficient manner;

Figure 4: Major Cost Components to Implement the Map Modernization Plan



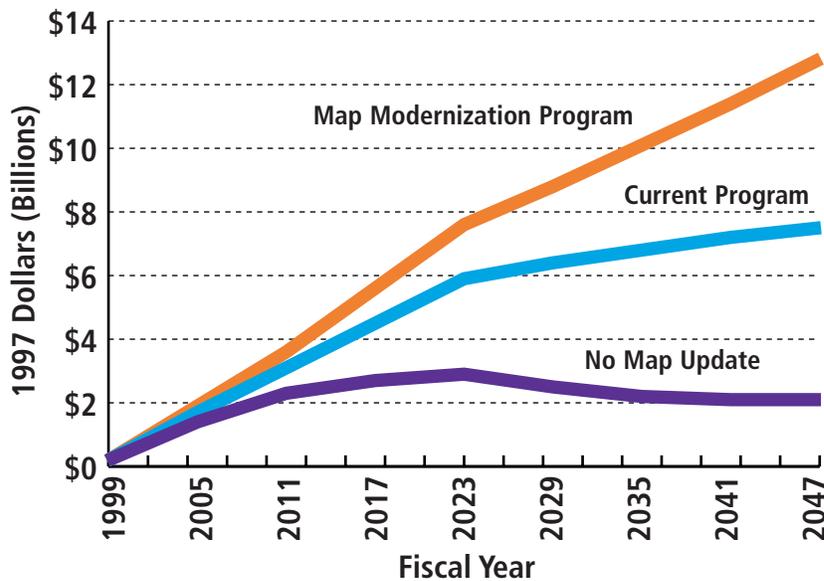
- Have FEMA’s various mapping partners complete work collaboratively and concurrently;
- Develop efficient communication tools, such as the Monitoring Information for Contracted Studies (MICS) software;
- Use more efficient task-order contracting mechanisms for study contractors; and
- Evaluate and apply emerging technologies for cost-effective modeling and mapping.

The major components of the proposed process are the Mapping Needs Assessment process, by which all flood mapping needs nationwide will be identified and prioritized; the scoping process, by which a tailored scope of work will be developed for FEMA’s mapping partners; and the parallel (i.e., concurrent) production processes.

Progress has been and is being made. However, current funding levels are inadequate to resolve the projected mapping needs of the flood map inventory. Thus, without infusion of additional funding, the backlog of outdated maps will continue to grow. Total incremental costs above current funding levels from FY 2001 through FY 2007 are estimated at \$750 million. Over the planned 7-year map modernization implementation period, total program costs will be about three times greater than the expected annual funding levels of \$52 million. Figure 4 includes \$364 million (\$52 million annually) expected fee-generated income over the 7-year modernization period.

Figure 5 makes clear the implications of not implementing the plan. Failure to conduct the needed flood data updates and convert the mapping inventory to a digital format will severely limit the potential of a modernized mapping program to dramatically reduce the loss of property.

Figure 5: Potential Annual Flood Losses Avoided For New Residential And Non-Residential Structures



The flood map modernization plan will help avoid approximately \$26 billion in flood damages to new buildings over a 50-year period over that which would be avoided by the current mapping program. This damage will be avoided by providing current, accurate flood hazard information for communities and property owners to make sound decisions when designing and siting new buildings and retrofitting existing buildings.

Each year of delay in implementation of the plan reduces long-term benefits to be achieved by approximately \$1.5 billion, and each year of delay in implementing the plan will add approximately \$17 million to the total cost of the plan.

The benefit-cost assessment of the modernization plan clearly indicates that the benefits to the nation, the most compelling of which is the potential to spare property from flood damage, dramatically outweigh the costs of the plan. If the modernization plan is not funded, a significant portion of these flood damages will result in increased use of the Disaster Relief Fund and uninsured losses to property owners. Thus, the flood map modernization plan will have far-reaching effects in reducing all types of flood losses and will be a valuable expenditure.

Program Emphasis: *Increase from 40- to 60-percent the percentage of work completed towards the congressionally mandated review of community flood map needs and initiation of action to improve floodplain mapping based on the availability of funds.*

Program Performance: One hundred percent of NFIP communities have been contacted for map update needs. Needs were evaluated and input to the Mapping Needs Update Support System (MNUSS). An improved method of ranking and consolidation of needs was developed for MNUSS. A report to Congress was completed that provides a description of activities accomplished during the first 5-year cycle, which began on September 23, 1994, the date of enactment of the National Flood Insurance Reform Act.

Program Emphasis: *Implementation of criteria for digital mapping standards.*

Program Performance: Significant progress has been made on the development of these new standards. Two sets of graphic prototypes and an initial version of the digital mapping database were distributed and comments were received from the user groups. The action plan is to:

- Complete graphic specifications during March, 2000; and
- Complete Digital Flood Insurance Rate Map (DFIRM) database specifications during June, 2000.

Program Emphasis: *Completion of the congressionally mandated coastal erosion study.*

Program Performance: The 1994 Flood Insurance Reform Act specified that an Evaluation of Erosion Hazards Study be conducted. This study is a comprehensive analysis of how erosion affects the NFIP. It includes the mapping of erosion hazard areas, an analysis of the economic impact of erosion on communities and properties, losses to the National Flood Insurance Fund caused by erosion, potential impact on insurance pricing and availability, and an assessment of erosion control activities undertaken by state and local government agencies.

The mapping part of the project has been completed under agreements with the affected state coastal management agencies. The economic impact component is underway. The report is scheduled to be completed and delivered to the Office of Management and Budget in March 2000.

Program Emphasis: *Development of a portfolio of products promoting appropriate mitigation planning and activities and availability for distribution through electronic and traditional media.*

Program Performance: FEMA's Flood Hazard Mapping Web site has been on line since October 1998. The address is www.fema.gov/mit/tsd/.

FEMA's Map Assistance Call Center has been operational since January 1999. Customers can call 1-877-336-2627 (1-877-FEMA-MAP) to ask questions about the procedures to revise or correct FIRMs.

In FY 1999, FEMA entered into 29 CTC Partnership Agreements with local, state, and regional agencies across the nation.

Progress is also being made on the Digital Flood Insurance Rate Map (DFIRM), which will eventually be distributed via CD-ROM and FEMA's Flood Hazard Mapping Web site.

CONCLUSION

The purpose and thrust of FEMA's mitigation strategy and actions are unmistakably carried out by the Agency in its various programs and initiatives, especially *Project Impact*. FEMA and partners are making communities more disaster resistant. FEMA is taking steps to identify and remove repetitive loss structures from harms way. The Hazard Mitigation Grant Program is assisting states and localities to strengthen sites which will lessen damage from natural and man-made disasters, while the Map Modernization Program is contributing to sound zoning and building decisions. FEMA's mitigation posture is building safer communities and contributing to reducing disaster costs in the future.

PREPAREDNESS, TRAINING AND EXERCISES DIRECTORATE



FEMA's training courses help emergency managers hone their skills and expertise.

*I*n partnership with the states, FEMA fosters innovation and improvement to reduce the gap between the capabilities required to respond to disasters and those in place. The focus of the preparedness strategy is on risk identification; emergency management professional development; establishment of capability performance measurements and assessment through tests, exercises and real world experiences; planning and public education; and partnerships with the private sector and other nations.

A collaborative framework of federal, state, local and private-sector business, industry, and nonprofit organization resources is used to yield a general reduction in the risk of loss of life and property from hazards, and support development of disaster-resistant communities and institutions. The strategy fosters a decentralized capability for state and local preparedness and response for all but the most catastrophic disasters.

An integrated partnership of trained people, well exercised plans, and fully-capable systems, procedures and facilities at all levels of government and the private sector are essential for survival and quick recovery from disasters and other emergency situations. The programs included under this category provided \$151 million dollars of emergency planning, salary, and administrative resources to achieve this, and strongly support FEMA's first two Strategic Goals:

1. Protecting lives and preventing or reducing loss of property from the impact of all hazards; and
2. Reducing human suffering while enhancing the recovery of communities after a disaster strikes.

FEMA provided almost \$117 million in emergency planning assistance funds as grants to all 50 states to improve crucial state emergency management capabilities in the areas of emergency planning and operations, education of emergency personnel and the public, implementation of emergency operations centers, and exercises to test and evaluate capabilities. FEMA conducts other key activities such as providing training to federal, state and local emergency responders at FEMA's Emergency Management Institute (EMI) as well as through extensive independent study courses. FEMA staff also extend technical assistance to all levels of the emergency management community to include other hazards such as Radiological Preparedness and Hazardous Materials, and sponsor



Tabletop exercises help emergency management professionals better prepare for disasters.

and coordinate a number of comprehensive exercises. All of these activities help create a knowledgeable and prepared emergency management community, ready to respond to all-hazard emergencies.

READINESS

Program General Purpose: *Improve state emergency management capability.*

State and local emergency management personnel need to identify, prepare for, and have the capability to handle disasters and emergency situations which can occur in their jurisdictions. Since the needs of these state and local responders can vary widely, this program has evolved into a generalized approach in which states determine their primary needs and negotiate annual Cooperative Agreement (CA) grants which provide salaries and operating expenses to improve state and local organization's emergency readiness.

Program Emphasis: *Continue to enhance the process by which states can identify the most critical strengths and weaknesses in their emergency management readiness and capabilities.*

Prior to 1996, emergency management officials in the United States lacked a nationally accepted process and criteria by which states could judge their emergency management readiness and capabilities. As a result, FEMA and the National Emergency Management Association, an organization composed of all state emergency managers, joined together in partnership to develop a readiness and capability assessment process for state emergency managers.

Program Performance: The state Capability Assessment for Readiness (CAR) is a self-assessment process focusing on 13 Emergency Management Functions (EMFs). These functions were identified by emergency managers from across the country and address the full range of critical emergency management areas required to ensure effective mitigation, preparedness, response, and recovery from disasters.

Each EMF is subdivided into attributes and these attributes are further divided into characteristics. Attributes are composed of broad criteria by which the EMF can be assessed. Characteristics are more detailed criteria that clarify each of the attributes. Emergency managers realized that only by providing two levels of assessment below each EMF could they define the function in fine enough detail to specify a measurable capability. It is this measurable capability that enables the state CAR to serve as a strategic planning and budgeting tool.

Attributes and characteristics under each EMF are scored on a scale of 1 to 5 to provide a quantitative rating. The rating for each EMF is derived by averaging the respective attribute scores. The specific scale used in the state CAR was developed at the request of emergency managers and in close coordination with the National Emergency Management Association.

The state CAR is a dynamic process involving state officials from key offices and departments throughout the state government (e.g., highways, health, welfare, police and fire), as well as from the office of emergency management. Successful completion of the state CAR process is dependent on state emergency managers having conducted a threat/hazard and vulnerability analysis so that they can more accurately define the threats and hazards that they face, their approximate chance of occurrence, and their state's vulnerability to them. In states, there are many potential hazards and threats, from ones that are of high frequency but low impact (e.g., small flooding, forest fires), to hazards that are low frequency but high impact (e.g., catastrophic earthquake, or terrorism incident).

Given the threats and hazards each state confronts, emergency managers need to examine the state's emergency capabilities against the attributes and characteristics of the state CAR, thereby developing a "self-profile" of the strengths and weaknesses in its emergency management program. This profile enables states to effectively target their program resources to those areas in their emergency management program in greatest need. In addition, states have the information they need for strategic planning and for justifying program and resource requirements or new initiatives.

Often the state CAR process is conducted with FEMA staff in attendance to ensure the close coordination and cooperation of state and federal government emergency assets and personnel. Together, the participants in the state CAR process develop and refine their shared vision of emergency management in the state, and steps required to insure rapid, effective federal assistance should it become necessary.

There is substantial support by states for the state CAR process. In 1996, all states completed the state CAR process and instrument (100% return rate). A national report was prepared in 1997 based on the data obtained. This report was provided to the President, the United States Congress, and the public. Since the issuance of the state CAR, it has undergone significant revision based on a series of federal/regional and state Customer Feedback Workshops designed to enhance the instrument and the entire process. The revised and improved state CAR instrument and process will be issued for completion by all states early in the year 2000.

The state CAR is fully automated allowing state emergency managers to quickly and flexibly use the data from their state CAR to set priorities, plan strategically, and explain the state's emergency management capabilities and needs to their governor, state legislatures and the public. In conjunction with the year 2000 issuance will be new computer features that will make the state CAR easier to use, more powerful, and help insure that different responders will interpret the same attributes and characteristics the same way. The state CAR will remain in the popular Windows driven menu format. However, there will be more choices, clearly identifiable, and they will provide the state user with not only the

ability to manipulate the data easily, but also draw important conclusions and then describe those conclusions in tables and charts.

New automated support features will also include a companion CD-ROM "Toolbox" providing expanded explanations of questions and concepts contained in the state CAR, as well as background materials. An expanded on-line help screen will guide the user through completing the instrument, and a detailed facilitation guide will offer guidance and suggestions for conducting the assessment process.

An important recent development is a draft local CAR instrument and process for use by cities and counties throughout the United States. This local CAR complements the state CAR and was recently developed by FEMA at the request of the National Emergency Managers Association. The local CAR will enable jurisdictions throughout the states to conduct emergency management self-assessments. For standardization purposes, the local CAR uses the common software of the state CAR along with the same 13 EMFs and the same scoring system. However, the local CAR allows for some customization of the instrument within these 13 EMFs to suit the needs and requirements of specific local jurisdictions. This local CAR initiative will evolve over the next few years and become an integral part of, and complement to the state emergency management capability assessment.

The development of the local CAR is of particular importance in that many localities (e.g., Los Angeles, Chicago and New York City) have substantial emergency management assets and capabilities. It is only by accounting for major local assets as well as state assets that state emergency managers can truly determine what are the state-wide emergency management resources, capabilities and needs. It is developing this holistic view of emergency management that is ultimately the core of the CAR process. We will report the results of the 2000 CAR survey in the 2000 Accountability Report, contingent upon the data being available in a timely manner.

FEMA Y2K PREPAREDNESS

Program General Purpose: *Provide a forum for the emergency management and emergency services community to discuss and resolve Y2K issues at the state and regional level, clarify expectations between federal, state and local governments, identify preparedness needs and vulnerabilities, and surface policy issues that should be resolved at the federal or national levels.*

Program Emphasis: *Conduct a series of 10 workshops across the United States in concert with federal, state and local government partners to identify Y2K state of readiness and identify issues that need to be resolved.*

Program Performance: More than 1,500 federal, state, U.S. territory, and local government emergency managers and volunteer agency representatives took part in these meetings.



A planning session to discuss and resolve Y2K issues.

At each of the workshops, a national team comprised of senior representatives of the Departments of Energy, Transportation, and Health and Human Services, and the National Communications System, the Federal Reserve, the Environmental Protection Agency, the Army Corps of Engineers, the American Red Cross, and FEMA presented the current status of their sector's readiness for Y2K. This set the stage for discussions among the emergency management community regarding their ability to respond to possible consequences of Y2K failures.

Although the participants were largely from the Emergency Service Sector, their responsibility to protect lives and property required them to examine the emergency response impact and possible consequences of computer failures across the full spectrum of Y2K sectors. The results are a prioritized listing of the emergency management community's view of the nation's vulnerabilities, critical issues, and recommended actions to mitigate against and respond to possible consequences of Y2K computer problems.

The U.S. has a robust national infrastructure and emergency management system, and those systems controlled by the emergency community are either Y2K compliant or have effective contingency plans in place. Very importantly, Y2K has provided a positive opportunity to improve emergency management programs and to engage public and private institutions and organizations in preparing contingency and preparedness plans. Federal, state and local governments and private industry are continuing to identify and "fix" computer systems, and test and validate critical infrastructure systems such as utilities, transportation and telecommunications systems.

The emergency management community identified more than 20 issues and more than 1,600 specific recommendations. The issues most frequently raised by workshop participants were grouped into broad categories and are summarized below:

- **Public Information.** Participants agreed on the need to increase public awareness, develop a media policy with one consistent message, and to provide accurate and timely information when the year 2000 arrives;
- **Planning.** Participants highlighted the need to continue public and private contingency planning coupled with tests and exercises to validate the plans. The FEMA *Contingency and Consequence Management Planning for Year 2000 Conversion*, guide was considered a valuable tool for planning; and
- **Resources and Infrastructure.** Participants identified the difficulties of staffing for consequence management at all levels of government. They reviewed major nationwide infrastructure systems where it was felt there was a low probability for failure but where there would be high impact should any failures occur such as the electric power grid. They found that only the small, highly localized power companies could be expected to have problems.

Because these workshops occurred during the February-April, 1999 time frame, many of the recommendations already have been carried

out by federal, state and local governments, industrial sectors, and volunteer organizations. The one area which continues to require on-going attention is that of supplying accurate, timely public information in the form of one consistent message.

The Regional Y2K Workshops were followed by a Cabinet Policy Seminar on Y2K that was held on September 18, 1999, at Blair House in Washington, DC. The President's Council on Year 2000 conversion sponsored this seminar, with joint support from FEMA and the Department of Defense. In attendance were Cabinet members, other senior level agency heads, and White House staff.

The main objectives of the policy seminar were to discuss:

- U.S. policies and process for international and domestic Y2K consequence management;
- Critical infrastructure readiness; and
- The global complexity of the Y2K environment.

The Cabinet Policy Seminar on Y2K resulted in a better understanding of the readiness of the nation and of that of federal departments and agencies for the date change rollover. The decision-making processes required to deal with any unexpected problems were found to be in place at senior levels.

HAZARD-SPECIFIC PROGRAMS

Program General Purpose: *Provide the guidance, technical assistance, coordination, and sharing of information to help state and local emergency managers prepare for hazardous materials and radiological emergencies.*

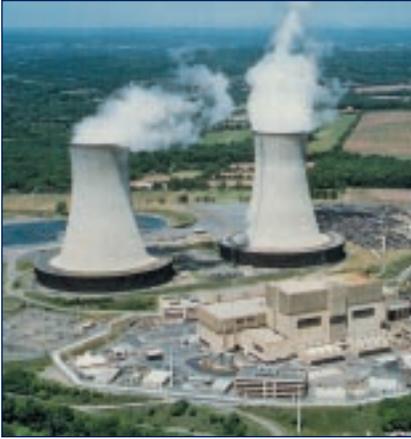
In addition to general, all-hazard emergency preparedness, FEMA provides support directed toward technological hazards, including hazardous materials and radiological hazards through its Preparedness, Training and Exercises (PT&E) Directorate as well as through the United States Fire Administration (USFA). Hazardous materials preparedness is of concern to communities in the United States because of the presence of these materials and because of the large role chemical manufacturing, transportation, storage and disposal industries play in the U.S. economy. Radiological emergency preparedness is of particular concern to those communities surrounding the licensed nuclear power facilities in 31 states. FEMA's technological hazards mission predominantly focuses on providing technical assistance support to communities and states in their planning, training and general preparedness efforts for these risks.

Program Emphasis: *Protect the health and safety of the public living in the vicinity of commercial nuclear power plants and provide reasonable assurance that public health and safety can be protected.*

FEMA assists the state and local jurisdictions that fall within the Radiological Emergency Preparedness (REP) emergency planning



Hazardous materials safety is a serious concern for state and local emergency managers.



The REP Program helps nuclear power managers and communities prepare for potential emergencies.

zones to plan and prepare for a timely and appropriate response to a radiological incident and to educate the public on these measures. FEMA also is charged with providing reasonable assurance findings to the Nuclear Regulatory Commission (NRC) in conjunction with its licensing of commercial nuclear power plants. Through the administration of its REP Program, FEMA determines reasonable assurance with respect to offsite preparedness for the 67 commercial nuclear power plants currently licensed and provides its findings to the NRC.

Program Performance: FEMA's REP Program assisted jurisdictions within the emergency planning zones to document and maintain reasonable assurance by reviewing REP plans; providing guidance, regulations, and policy; conducting training; and conducting, evaluating, and reporting on REP exercises. In addition, as a result of the discipline of the REP Program, participating jurisdictions were better prepared to perform emergency functions in responding to non-REP emergencies.

Program Emphasis: *Streamline FEMA's REP Program by examining all aspects of the program and identifying specific areas where administration of the program can be made more efficient, while still maintaining public health and safety.*

For a number of years, many REP Program stakeholders have asked FEMA to streamline its REP Program. These stakeholders cited the program's maturity and the overly-prescriptive administration of the program as the bases for their requests. FEMA agreed to reconsider how the REP Program was structured.

Program Performance: In 1996, FEMA initiated a strategic review of the REP Program and established a Steering Committee to guide the review and formulate recommendations for streamlining. The Steering Committee examined the current program, solicited input from members of the REP community and, in March 1999, forwarded recommendations to the REP program office for implementation. The Committee's recommendations, in general, advocated consistency in applying the program and the use of a results-based approach to restructure the REP exercise program. In May 1999, FEMA established an implementation Oversight Working Group (OSWG), chaired by FEMA, with members from federal, state, local, and tribal governments and the nuclear power industry. FEMA also established teams to work on specific recommendations, complete the details of their implementation, and report to the OSWG. This implementation process, which is ongoing, furthered the goal of streamlining the program and led to improved working relationships between FEMA and the REP community.

Program Emphasis: *Identify the problems and challenges facing the state and local emergency response/first responder communities in HAZMAT prevention, preparedness and response, and provide technical assistance to state and local HAZMAT communities to enhance their HAZMAT capabilities and address their needs.*

FEMA has compiled a review of its hazardous materials preparedness initiatives in an effort to improve its HAZMAT programs, functions and activities and to reduce duplication with other federal agencies that also provide HAZMAT technical assistance and support to state and local agencies. As an outgrowth of this review, PT&E in conjunction with the USFA convened a conference, entitled “HAZMAT Summit: Working Better Together” as a means of more clearly identifying and addressing the problems and concerns of the local HAZMAT communities.

Program Performance: The summit focused on identifying the problems, challenges and recommendations in HAZMAT prevention, preparedness and response. Summit attendees included participants with experience in HAZMAT problems confronting state and local agencies. Major fire service, emergency management and law enforcement organizations were invited. Because the aim of the conference was to encourage better coordination, FEMA also invited the Environmental Protection Agency and the Department of Transportation. These two federal agencies also have primary responsibilities and programs for assisting local HAZMAT communities. Recommendations made during the meeting are serving as the basis for revisions, improvements and additions to FEMA’s ongoing HAZMAT preparedness programs for both FEMA’s PT&E and USFA organizations.

Among the steps FEMA is taking as a result of the HAZMAT Summit, and its earlier Agency review, is the implementation of its Comprehensive HAZMAT Emergency Response-Capability Assessment Program (CHER-CAP) developed by Region VI, in other FEMA regions. This program is an operational readiness program that assists local communities in identifying HAZMAT planning deficiencies, obtaining greater understanding of HAZMAT risks, updating the local emergency plans, and stimulating and testing the communities strengths and weaknesses for HAZMAT response through a full-scale, no-fault HAZMAT exercise.

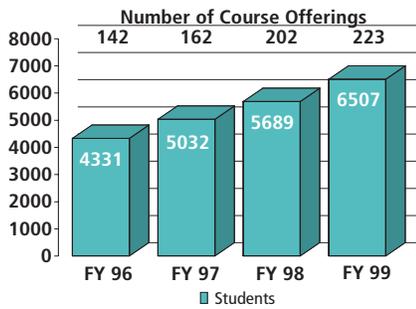
TRAINING

Program General Purpose: *Increase the knowledge and expertise of federal, state and local emergency management workforces and the public through an extensive curriculum of training courses and materials.*

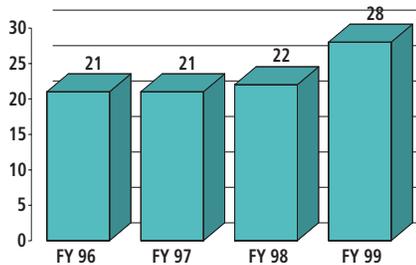
A primary factor in building a nationwide, inter- and intra-governmental cadre of professional emergency managers and an informed public is the availability of a wide variety of training modules that are focused on many individual needs, and which are provided through readily available sources.

Program Emphasis: *Conduct 200 EMI resident training course activities to train 5,000 students, including 24 Integrated Emergency Management Courses (IEMCs), and host training conferences and workshops.*

EMI Course Offerings And Students



IEMC Deliveries



Students from throughout the country attend EMI for traditional classroom training in a wide variety of emergency management topics. EMI staff provide the most current information and teaching methods, and the EMI classrooms and facilities significantly enhance the learning experience. In addition to courses designed for individual education, EMI trains state instructors to provide state and local emergency management training back in their own localities, and conducts the extremely popular Integrated Emergency Management Courses (IEMCs) which are custom-tailored either to a locality or to a hazard, and hosts numerous conferences and workshops.

▲ **Program Performance:** The EMI course delivery has steadily increased over the past four years as is shown in this chart.

◀ The number of IEMC's delivered has also dramatically increased.

IEMCs were conducted for Boston and New York City. The New York City course helped define the operational configuration for their new Emergency Operations Center located within the World Trade Center complex. And officials from St. Louis, MO, participated in a Special Event IEMC as they prepared for the Papal Visit this year.

Two "firsts" in the IEMC arena were also conducted in FY 1999. A multi-jurisdictional IEMC that crossed state boundaries was held for the South Lake Tahoe area. It involved participants from California and Nevada. Also, an IEMC for a FEMA Regional Operations Center was conducted in San Francisco. And during FY 1999, nearly 300 local officials participated in five offerings of the new IEMC on Recovery-Mitigation training.

We began use of the Internet to recruit and fill positions for generic audience IEMCs. A recruitment page exists within the FEMA Web site and a short notice of vacancies are posted on a regular basis.

The results of follow-on surveys (sent to each EMI student three months after completion of the class) are excellent. During FY 1999, only 3% of the students reported that the instruction was not applicable and was not being used. Sixty-four percent (64%) reported that they are using the instruction either in their day-to-day jobs or on emergency assignments. Thirty-three percent (33%) reported they had no opportunity to use the instruction. This last figure is expected given the nature of the work by emergency managers at all levels of government. In some cases, no opportunity means that the community has not experienced an emergency/disaster for which the participants could apply the EMI training. Course managers and program office managers use this data in reviewing target audiences, revising course content, and making other necessary changes.

EMI also hosts a wide variety of conferences and workshops at our newly renovated Conference and Training Center (CTC). For example, the largest single training/conference event ever conducted at CTC was held in June 1999, as nearly 200 federal, state, and local officials participated in the FY 1999 All-Hazards Mitigation Workshop. In all, EMI hosted 27,762 student days at the CTC in FY 1999.

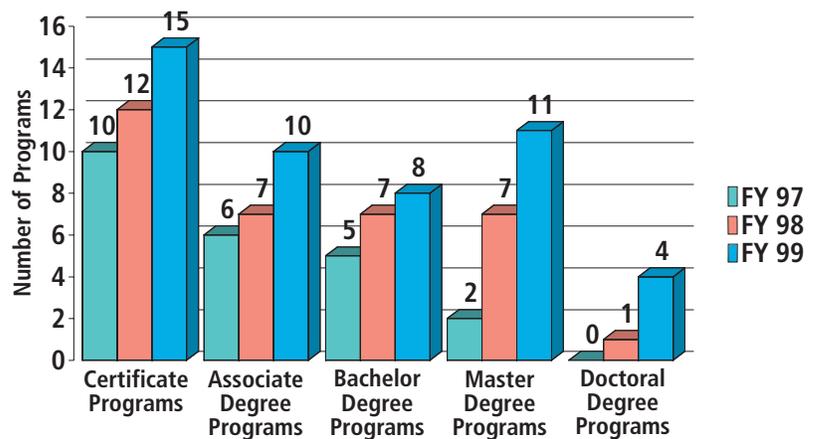
Program Emphasis: *Provide a wide variety of EMI non-resident training activities through diverse media such as the Internet, FEMA's Emergency Education NETWORK (EENET), independent study course, and institutions of higher education.*

Program Performance:

Community Emergency Response Team. The Community Emergency Response Team (CERT) program promotes the training of civilians in preparedness and response skills to care for themselves, family members, and neighbors. CERT continues to grow, with communities in 22 states conducting the training. More than 60,000 people have completed the 18-hour program. EMI supports CERT by funding residential and state Train-The-Trainers, and by providing training material. The CERT coordinator promotes the program by operating a Web site at www.fema.gov/emi/cert, conducting chat sessions, making presentations, and producing training materials.

Higher Education Project. One of EMI's Higher Education Project goals is to see an emergency management-related degree program in every state of the Union by the year 2001. When the project began in FY 1995, the University of North Texas, Thomas Edison State College, and the Rochester Institute of Technology were the only schools offering degrees in emergency management. Since FY 1995, the Higher Education Project has been working with a variety of colleges and universities to develop classroom-based, upper division (junior/senior), baccalaureate-level courses as part of its prototype emergency management curriculum. To date, there are 5 completed courses and 15 currently under development. The Higher Education Project also developed a prototype curriculum for associate degrees in emergency management, based on existing EMI training courses.

Emergency Management-Related Degree Programs



In addition to the number of higher education programs implemented in each fiscal year shown above, 23 colleges and universities were investigating/proposing the development of an emergency management program in FY 1999.



Emergency Education NETWORK programs help train thousands of emergency management professionals annually.

Community Hurricane Preparedness (IS 324). The EMI and National Weather Service (NWS) jointly funded and developed EMI's first interactive independent study course about hurricanes. The target audience is local, state and federal emergency management personnel in hurricane prone states and territories. IS 324 is distributed on a CD-ROM. It came on-line in May 1999. Since then, 606 people have applied for it, with 200 completions. The course covers hurricane formation, tracking, forecasting, and hazards. It also has an exercise outlining actions that emergency management personnel should take in preparation for an approaching hurricane. One can apply on-line for the course at www.fema.gov/emi/ishome.htm. Also, FEMA and the NWS are having the course translated to Spanish for use in the Caribbean and Gulf area.

Professional Development Series. Since 1986, over 2,250 men and women in emergency management have completed all course requirements and received a Professional Development Series (PDS) Certificate. This means that they have worked to develop or refine emergency management skills in a minimum of seven areas: fundamental principles; operations planning for all-hazards; leadership; communications; decision-making; management of volunteers; and exercises. The value and recognition of the PDS certificate is growing in the emergency management community. Almost 1,100 certificates (nearly half of the total) have been issued in the last four years. From FY 1986 through FY 1999, approximately 8,000 students were completing PDS courses a year. So the impact of these courses on the profession of emergency management has been enormous, with over 100,000 course completions.

Y2K Training. In March 1999, the Emergency Education NETWORK's (EENET) monthly video journal for emergency managers (the National Alert Series) began to include at least one segment on Y2K issues, a practice that will continue throughout the remainder of the year. Topics include the following:

- General Y2K overview and efforts taken by FEMA and state governments;
- Planning information for the general public;
- Y2K myths;
- Surfing the Internet for Y2K information;
- Y2K preparedness in a local community (Montgomery County, MD);
- Y2K exercises;
- Y2K ready community (Lake Havasu, AZ); and
- Chimney safety.

The first full Y2K EENET broadcast entitled, "Y2K: A Leadership Issue" aired on May 12, 1999. The focus of this program was to examine Y2K issues from an emergency management perspective. Featured on the program was a review of the results of FEMA's 10 Y2K regional workshops, a discussion of Y2K emergency planning

and response issues, tips for Y2K community preparedness, and the importance of information for the public on Y2K. The importance of community leadership and community preparedness for addressing Y2K challenges was emphasized in the broadcast. One of the features of the program was a review of Y2K preparedness in Montgomery County, MD.

On July 7, 1999, EENET aired a Classroom Connection entitled "Three Perspectives on Y2K." This program consisted of three presentations on Y2K issues from FEMA's fourth annual "Technology Partnerships for Emergency Management Workshop and Exhibition" conducted with Oak Ridge National Laboratory in Gatlinburg, TN, on May 18, 1999. This particular program was also carried on the General Services Administration internal cable system.

The second full EENET broadcast entitled, "Y2K: Community Anticipation" aired on July 14, 1999. The program addressed the Y2K issues from a community and family preparedness perspective and featured Lake Havasu, AZ, and its Y2K preparedness activities. The broadcast also featured a panel of representatives from across the country who have dealt with similar Y2K issues and a discussion on the Federal Response Plan Community Tabletop Exercise.

We developed and distributed the popular booklet entitled *Y2K & You: A New Horizon* for FEMA employees. The booklet was developed in response to employee concerns about the Y2K problem and what was being done to resolve the problem in the private and public sectors. A facilitator guide was also developed for use in conjunction with the booklet to deliver briefings on Y2K. As information circulated about the booklet, numerous requests for copies were received from organizations throughout the nation. The booklet has been so successful that to date over 90,000 paper copies have been distributed, and the number of requests for copies continues to escalate. In response to the enormous demand, the booklet was placed on the FEMA Internet where it can be downloaded and printed by FEMA internal and external customers.

To address the Y2K training needs at the local and state level, EMI staff developed the course, *Getting Ready for Y2K*. Topics covered are understanding the Y2K challenge, assessing Y2K readiness, developing Y2K contingency plans, promoting Y2K public awareness, and exercising Y2K contingency plans. The instructional tools include an instructor guide, video, tool kit, and note-taking guide. To meet the requirements of a diverse audience, the training is available in three formats: traditional paper-based classroom, interactive Internet, and interactive CD-ROM. The course is being delivered extensively throughout the nation, and feedback from participants indicates the training is right on target for helping the emergency services community get ready to meet the Y2K challenge.

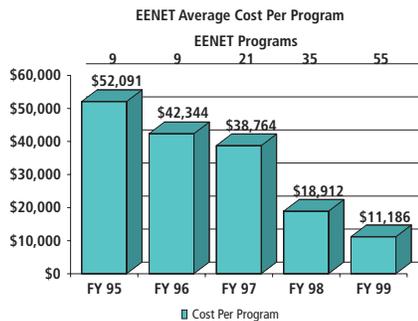
We conducted a workshop on May 5, 1999, for state emergency management training officers from across the nation. The workshop focused on the Y2K course, *Getting Ready for Y2K*, developed by

EMI for the state and local emergency management community. The course was also presented to National Aeronautics and Space Administration (NASA) staff at the agency's annual emergency management conference held at the Kennedy Space Center.

We conducted Y2K training on May 20 for state Public Information Officers from across the nation. The training focused on how to promote Y2K public awareness. The training material on Y2K outreach was extracted from the state and local course, *Getting Ready for Y2K*.

EMI staff participated in the Department of Energy's Y2K Awareness Day held on June 15th at the Washington, DC, office and June 17th at the Germantown, MD, office. EMI staff responded to attendee inquiries about Y2K and distributed hundreds of copies of the booklet, *Y2K & You A New Horizon*, and FEMA's family preparedness materials. At the request of other event representatives, numerous copies of the materials were provided to them for their use in upcoming events being held at the local, state, and national levels. The other representatives included other federal agencies, state and local government, and the private sector (utilities, financial, and healthcare industry).

The Emergency Education NETWORK. EENET has made great strides since calendar year 1995, not only in the cost per program, but also in the number of programs. In calendar year 1995, EENET broadcast 9 programs at an average cost of \$52,091 each, while in calendar year 1999 the estimated number of programs are 55 at an average cost of \$11,186 each.



◀ The yearly breakdowns by year and cost per program are:

Until 1997, EENET programs were produced and broadcast entirely by contract staff/crew. But in early 1997, EENET began to produce programs with in-house FEMA staff functioning as crew. Not only was the cost per program reduced, but the quality as well as the quantity has improved dramatically, as reflected by the number of national awards EENET received. Prior to the 1997 program season EENET programs were awarded a total of 7 awards; the 1997 programs received 8 awards including an International Film and Video Award; and the 1998 programs received 19 awards including 2 Classic Telly Awards for the best programming in the past 20 years.

During 1998 and 1999, EENET programs not only increased in numbers, but also decreased in cost, without additional funding or staff. This was possible with the addition of many outside organizations as program partners such as: DOT's Office of Pipeline Safety; USDA's Animal and Plant Health Inspection Service; Hospice Foundation of America; and Home and Garden Television, to name a few. EENET has maintained other partnerships with the Commonwealth of Pennsylvania, Virginia Beach Fire Department, and Tampa Fire and Rescue who have been training program companions for several years.

During 1998–1999, EENET has provided participants who do not have access to a satellite with an alternative way to view programs by the addition of Internet video-streaming. This option is available for 30-60 days following specific programs for the viewing audience to watch EENET at their convenience.

Mitigation Management Series. In order to encourage appropriate mitigation in states and local communities, the EMI initiated two new certificate programs during FY 1999: The Mitigation Management Series—State; and Mitigation Management Series—City/County. State or city/county professionals can achieve the appropriate certificate by completing 5 required courses, as well as 4 elective courses (chosen from a menu of 8), and completing a practicum in their respective jurisdictions. Required and elective courses can be selected from EMI's field and Independent Study curricula, and include courses such as *Introduction to Hazard Mitigation*, *Retrofitting Floodprone Residential Buildings*, and *An Introduction to the Property Acquisition Process*.

The practicum experience requires the professional to conduct one (city/county certificate program) or two (state certificate program) Mitigation and Recovery Exercises for Local Government Officials. Facilitators' Guides and materials for conducting these exercises are available from EMI on CD-ROM, and provide resources for three different mitigation exercises addressing flooding, earthquake, and hurricane.

Mitigation is a proven way to save lives and protect property. These new certificate programs will be especially useful in helping *Project Impact* communities foster mitigation expertise and commitment.

Exercise Curriculum and Master Exercise Practitioner Program. In FY 1999, nine courses were available for state and local government training. Courses in the curriculum now include:

- IS120 An Orientation to Community Disaster Exercises
- G120 Exercise Design Course
- G130 Exercise Evaluation Course
- G135 Exercise Control/Simulation
- G137 Exercise Program Manager/Management Course
- G138 Exercise Practicum
- G250.8 Exercise Controller/Simulator Workshop
- G250.9 Exercise Evaluator Workshop
- E136 Exercise Development Course

In FY 1999, EMI deployed the Master Exercise Practitioner (MEP) program to be administered by the FEMA regions, state emergency management agencies, and our local government partners. The MEP is intended to recognize those individuals who have completed the Comprehensive Exercise Curriculum on a take or teach basis and have demonstrated a high level of achievement in the development, conduct, and evaluation of emergency management exercises.

Master Trainer Program. In 1995, EMI created the Master Trainer Program to train state, local, and federal trainers on how to conduct needs assessments, design training, develop training materials, and conduct and evaluate training. The program consists of 6 courses that parallel the Instructional Systems Design process and a practicum that requires development of 16 hours of performance-based training. Students complete work assignments using real projects from their work environment. For many participants, it is their only training on how to design and conduct training. During FY 1999, 17 people were accepted into the program, bringing the total to 106. There were 196 course completions in the program's 6 courses and 3 people completed the practicum and all 6 courses.

Access to Training via Internet. During FY 1999 the Training Division is developing a Web-based version of Course Evaluation to be delivered in FY 2000. This course will still use an instructor to interact with students, but students will not need to travel to EMI to complete the course. The course will only be available using the Internet. This is the second course of this type to be offered.

During FY 1999, the Training Division arranged to have 11 videotapes digitized and made available on the Internet for public viewing. These were in addition to the EENET broadcasts that were also available on the Internet. The videotapes included information on the new Public Assistance program, procedures for Community Emergency Response Teams, Y2K Millennium Myths, and the independent study course videotape on community disaster exercises. Reports on use show a range of 181 to 646 hits per week on the videotapes. This means that thousands of people have been able to watch the videotapes without ordering them, thereby decreasing our reproduction costs while providing timely service to our customers.

OTHER PROGRAMS

Program General Purpose: *Support the Emergency Food and Shelter Program to efficiently and effectively deliver funds to local jurisdictions to assist local efforts to relieve the problems associated with hunger and homelessness.*

Program Emphasis: *Continue to support and fund the National Emergency Food and Shelter Board in the effective provision of grants to providers of emergency food and shelter services.*

This program supports more than 11,000 local nonprofit organizations and government agencies throughout the country which advertise the availability of funds, assess community needs, make allocation choices, and assure the coordination of efforts and systems to prevent duplication of benefits. FEMA passes funds appropriated for this program through in their entirety to the Program's National Board which is composed of heads of national charitable organizations, which then works with the local boards to distribute the funds rapidly and equitably to local jurisdictions to supplement community efforts to provide emergency food and shelter.

HELPFUL HINTS

Prepare Now for the "Next One"

- ◆ Prepare an evacuation plan:
 - plan evacuation routes
 - know how to shut off electricity, gas and water
- ◆ Make a record of your personal property and keep this record in a safe place:
 - use photographs
 - videotape
- ◆ Store important documents away from your home:
 - insurance policies
 - deeds
 - property records
- ◆ Assemble a flood supply kit:
 - first aid and medications
 - canned food
 - water (3 gallons per person)
 - rain gear
 - bedding or sleeping bags
 - battery-operated radio
 - flashlight and batteries
 - special items for infants and elderly

Program Performance: The EFS National Board has continued to rapidly distribute funds to areas in the nation that have higher than average levels of unemployment and poverty. In FY 1999, the EFS Program:

- Funded 11,000 non-profit and local government agencies in 2,500 counties;
- Provided more than 85 million meals;
- Provided more than 4 million nights of shelter; and
- Paid more than 300,000 rent, mortgage and utility bills to prevent families from losing their homes.

CONCLUSION

It is imperative that the emergency management community plan for, and be prepared to respond to emergencies and disasters in their communities. The programs and funds described above significantly increase their preparedness by helping them focus on identifying risks to their communities; put plans in place to manage their response; train so they have the skills and capabilities needed; and exercise those skills so they have more experience when disasters or emergencies occur.

FEDERAL INSURANCE ADMINISTRATION

THE NATIONAL FLOOD INSURANCE PROGRAM

FEMA PHOTO BY SHAWN CHADWICK



Flooding in North Carolina from Hurricane Floyd reached record levels.



The National Flood Insurance Program (NFIP) was created by Congress in 1968 in response to mounting losses and the escalating costs of natural disasters to the American taxpayer. The program is designed to help reduce flood losses through sound and safer building standards and mitigation, and to help pay for flood losses through insurance rather than federal disaster assistance. The NFIP is constructed on three pillars:

1. Hazard identification and risk assessment—mapping of flood-prone areas to make flood hazard determinations and set insurance rates;
2. Mitigation—adoption and enforcement of reasonable land-use requirements and building codes to reduce future flood damage; and
3. Insurance—operation of a mechanism for financial protection against the risk of flooding for residents and business owners (a coverage not generally available in the private market).

These three pillars provide a solid foundation for the NFIP and without the support of any one of them, the program will not work effectively. Hazard identification and risk assessment, and mitigation are discussed in the Mitigation Directorate section of the report. The insurance pillar is discussed below.

Floods are more destructive to the nation than any other natural disaster—estimated by the U.S. Army Corps of Engineers to cost an average of \$5.1 billion in damages each year. The NFIP, the largest single line property and casualty insurer in the nation, has over four million policies in force in over 19,000 participating communities with coverage totaling \$510 billion. The NFIP works in partnership with local communities and the insurance and lending industries. Federally-backed flood insurance is made available in those communities that adopt and enforce floodplain management ordinances designed to reduce future flood damage. The program protects property owners by providing an insurance mechanism that helps individuals and businesses recover financially from floods. It protects lenders from uninsured flood losses and taxpayers from having to provide disaster assistance to uninsured flood victims. For participating communities whose floodplain management ordinances promote better and safer construction, flood damage is lessened and recovery is accelerated.



Homeowners suffer significant losses from flood waters.

Program General Purpose: *Through NFIP insurance and floodplain management activities, reduce expected annual flood disaster costs to FEMA and losses to taxpayers by an estimated \$850 million or more.*

Program Emphasis: *Develop measurement systems to confirm estimated savings.*

Insurance rules and rating mechanisms, e.g., coverage and premium rates, will be used as economic incentives and disincentives to reinforce mitigation through building requirements that reflect sound floodplain management. Incentives and disincentives will be administered at the individual and community levels and includes operation of the Community Rating System. NFIP insurance marketing activities will include promotion of flood mitigation, including support of *Project Impact*. All of these activities will result in better management and decision making.

The performance indicator is the total reduction in losses and costs for the estimated population of buildings constructed to meet program standards.

Program Performance: The NFIP and the Mitigation Directorate developed a refined methodology for using insurance experience to project reductions in losses. This statistically derived savings estimate results from the savings realized by enforcement of flood mitigation measures by NFIP participating communities. Buildings constructed in compliance with NFIP building standards suffer 80% less damage annually than those not built in compliance. In FY 1999, the NFIP helped Americans avoid an estimated \$1 billion in flood losses.

The NFIP will continue to work with government partners—states and communities—to propose ways that accelerate the pace at which homes and communities become flood resistant. In FY 1999, a total of \$18 million in Flood Mitigation Assistance Grants were spent to help mitigate additional flood losses in flood prone areas of the nation.

Program General Purpose: *The development and implementation of an Agency repetitive loss strategy to significantly reduce repetitive losses to the NFIP.*

Program Emphasis: *Development of the strategy and mechanism for dealing with NFIP repetitive loss properties.*

Program Performance: Numerous reports were developed and refined for providing information about repetitive loss properties, and a target group of about 10,000 properties was identified for focusing mitigation efforts. Workshops about the Agency's repetitive loss strategy were conducted at the National Flood Conference, the Association of State Floodplain Managers Annual Conference, and at the All Hazards Mitigation Conference. Various reports and algorithms for prioritizing specific properties for mitigation action under the FY 2000 funding for the Flood Mitigation Assistance (FMA) Program were tested.



Many North Carolina communities were under water for days in 1999 as a result of Hurricane Floyd.

Procedures were drafted and issues identified in consultation with the Institute for Business and Home Safety (IBHS) Flood Committee for implementing a Special Direct Facility, which will become the only vehicle under which the NFIP will insure the target group of repetitive loss properties. A contract was awarded for the development of this facility.

A proposed rule, requiring full-risk premiums on target properties where mitigation offers under FMA and Hazard Mitigation Grant Programs (HMGP) are declined, was published and comments are under review. A legislative proposal was provided to the Office of Management and Budget for review. Numerous educational briefings were held with congressional staffs, and members of Congress introduced two bills addressing the repetitive loss issue. Community Rating System credits for addressing repetitive loss properties were increased to encourage further community action.

This successful design and development program recognizes that repetitive loss properties account for a significantly disproportionate share of NFIP claims payments—approximately \$65 million annually for the target group. Mitigation measures for these properties will greatly reduce future flood losses, disruption and suffering, and materially improve the financial well being of the NFIP.

Program General Purpose: *Enhance the recovery of individuals, businesses, and communities after flood events by increasing the number of NFIP policies-in-force by an average of 5 percent per year.*

Program Emphasis: *Increase the number of NFIP policies-in-force by 5 percent.*

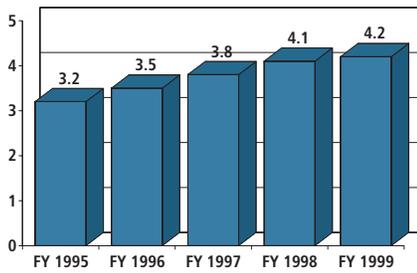
Increasing NFIP awareness, promoting policy sales, and coordinating mandatory flood insurance purchase requirements will help ensure that the recovery of individuals suffering flood losses is made possible by insurance as opposed to disaster relief funds.

The increases in the number of flood insurance policies is determined by comparing annual increases as shown in current year-end NFIP policies in force reports, compared to the prior year's year end policy count.

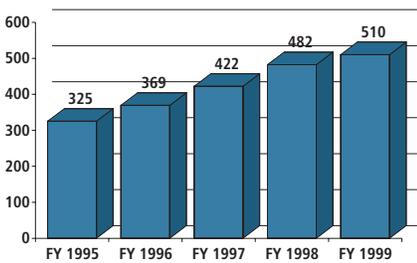
Program Performance: The policy growth in FY 1999 was 1.7% with the year end policy count of 4,187,729 policies. This is based on data through July 31, 1999 and estimated for August and September.

The NFIP experienced an unprecedented growth rate in policies at more than 8% in FY 1998. This extraordinary growth rate occurred primarily in California where a 61% increase in policies-in-force occurred. In FY 1999, despite special efforts, many of these policies were not renewed. The policy count dropped more than 52,000 policies in California, and policy retention was down in other areas of the country as well. The absence until late in the year of the threat of flooding or major flood events to remind people that they need insurance also contributed to reduced policy growth.

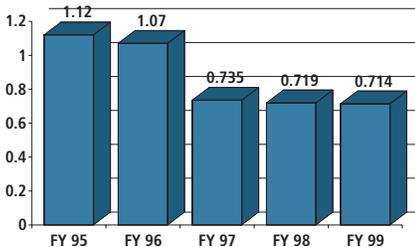
Policies-in-Force from FY 1995–1999 (In Millions)



Insurance-in-Force From FY 1995–1999 (In Billions)



Paid Loss And Loss Adjustment Expenses FY 1995–1999 (In Billions)



However, to help encourage people to buy and renew their flood insurance policies, the planning and development of a new marketing campaign, called Cover America II, began with a focus on increasing awareness of flood insurance and the NFIP, and generating sales leads for insurance agents. Additionally, a portion of the expense allowance for Write Your Own (WYO) companies (private insurance companies with a signed agreement with the FIA, to sell and service National Flood Insurance), has been redesigned to focus on retention of current flood insurance policies as well as generating new flood insurance policies.

- ▲ In FY 1999, the number of policies-in-force increased by 69,793, bringing the number of policies in force to 4,187,729.
- ◀ The increases in policies-in-force and insurance-in-force mean that more property owners are in a better position to recover quickly from flood losses. These increases also reduce the amount of funds required from taxpayer-funded disaster relief for uninsured flood losses.
- ▼ Fewer uninsured losses mean there will be less pressure for disaster relief measures that rely on taxpayer funds (federal, state and local governments), rather than policyholder premiums.

Program General Purpose: *Complete activities for the revision of the NFIP to enhance the financial soundness and equity of the NFIP.*

Program Emphasis: *Complete development of required studies, analyses, legislative and regulatory proposals and processes required for implementation of the program, e.g., studies of alternative coverage and rates, and approval/acceptance of key products needed for implementation to pursue measures designed to enhance the financial solvency of the program.*

The performance indicator is the approval/acceptance of key products, e.g., the economic impact of subsidy reduction, coverage, and pricing alternatives.

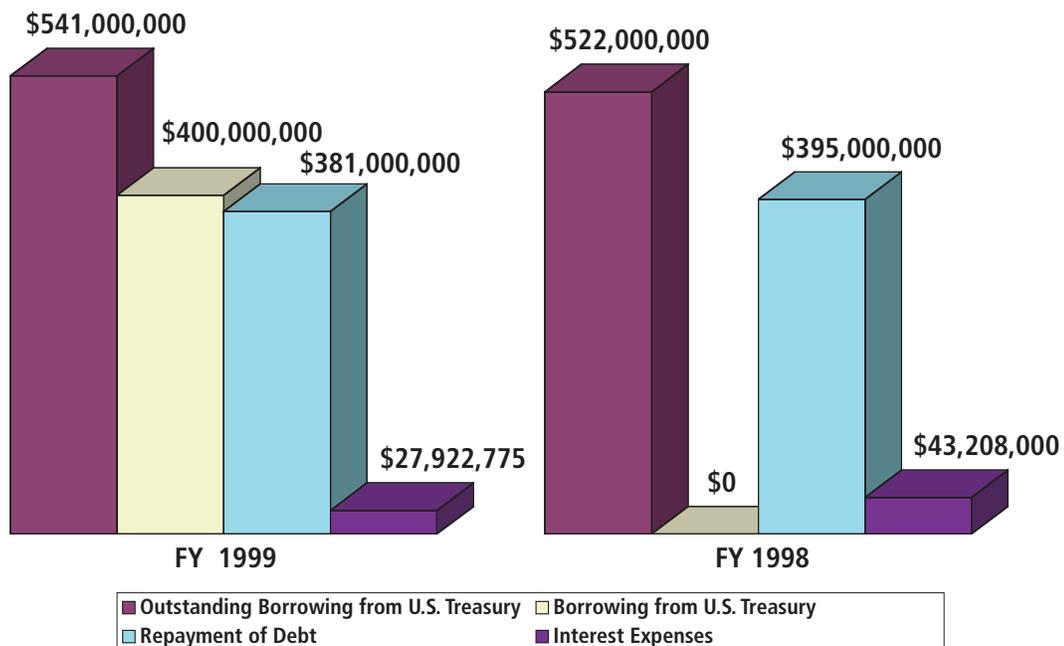
Program Performance: Several studies conducted by the FIA during FY 1999 were directed at improving the long-term financial position of the NFIP and at balancing program funding sources between policyholders and other beneficiaries. The report on the economic impact of subsidy elimination was developed, and has undergone a complete technical review. Some resulting legislative proposals regarding the subsidy were included in a package sent to OMB. Currently, approximately 30% of the structures in the NFIP policy base are insured at subsidized rates. From an estimated \$200 million paid in NFIP insurance claims for repetitive losses during an average year, about 96% are from these subsidized structures. Further recommendations will be refined during the first quarter of FY 2000 and the report, required by Section 578 of the National Flood Insurance Reform Act, will be sent to Congress by the end of the second quarter of FY 2000.

A study of alternate program financing methods was completed and the results are being circulated. The draft final report of a *Study of NFIP Claims and Underwriting* has been received. The report analyzed the current performance, identified best practices, made recommendations, and will be used to develop benchmarks and standards, improve the program and potentially lower costs. After close examination, and in connection with the rulemaking process, a public forum was conducted to address changes to the expense allowance provided to WYO companies. This effort resulted in a recalculation that both reduces the allowance and provides the companies with effective incentives for policy retention and growth.

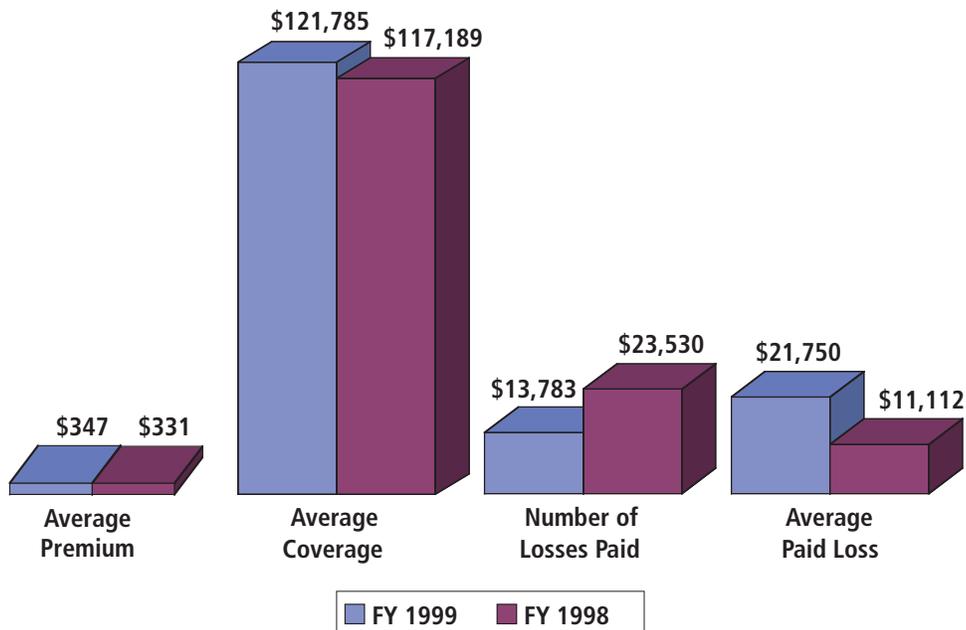
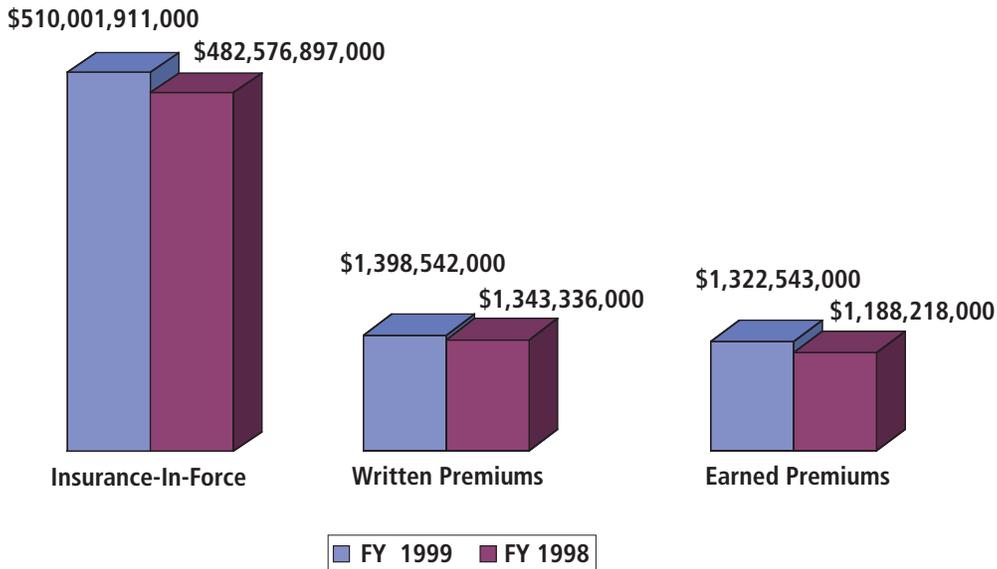
The Annual Rate Review for FY 1998 was completed and the FY 1999 Review was started and will be completed in the first quarter of FY 2000. With the Mitigation Directorate, work was begun on a comprehensive program evaluation to be initiated in FY 2000. Candidate areas of study were refined by a panel of distinguished academics and practitioners and subsequently discussed with representatives of the academic community at the University of Colorado in July, 1999.

The NFIP is authorized to borrow from the U.S. Treasury up to \$500 million (up to \$1.5 billion with approval from the President). Periodic interest payments are made to the Treasury to pay the accrued interest on borrowings—nearly \$30 million was paid this year. At the end of the fiscal year, outstanding borrowings from the U.S. Treasury total \$541 million, a net increase of \$19 million when compared to FY 1998 borrowings. The NFIP borrowed \$400 million during the year and paid \$381 million back to the Treasury. Fiscal Year 1999 Financial Highlights are presented in the following graphs.

FY 1999 vs FY 1998 Financial Highlights



FY 1999 vs FY 1998 Financial Highlights



Program General Purpose: *Work with industry partners and the Chief Financial Officer (CFO), confirm NFIP integrity, and ensure that program delivery efficiently meets or exceeds required customer-service and other standards.*

Program Emphasis: *Positive financial, customer-service, and other evaluation reports, including unqualified audit reports to help ensure the continued, efficient, effective operation of the program. Enhancing the strategic public/private partnership is in the interest of both parties, the public, those at risk and potential and actual policyholders.*

HELPFUL HINTS

Mud & Mildew?

How to Get Rid of It

- ◆ Get rid of mud as soon as possible—it may contain health hazards.
- ◆ Wear rubber gloves and a face mask when cleaning.
- ◆ Use a soap containing disinfectants to wash your hands.
- ◆ A solution of one part bleach and four parts water will kill surface mildew—used regularly will prevent mildew from returning.

Accurate and timely financial reports, that are in conformance with federal standards, will help to ensure the integrity of the program.

Program Performance: The key indicator of success is the receipt of an unqualified audit opinion on NFIP financial statements. This reflects the continuous operating and financial oversight of the program including the more than 80 companies participating in the WYO program. FEMA received an unqualified opinion on the annual financial audit conducted by the Inspector General for FY 1998. The audit for FY 1999 will be started in the first quarter of FY 2000 and completed in the second quarter.

The Federal Insurance Administration operates the Financial Control Plan for the WYO program and developed mechanisms to improve company oversight and communication. Based on the FY 1999 pilot test of operational reviews at two WYO companies, a full operational review program, to include both customer service and marketing reviews, will be initiated. The pilot test will begin in the second quarter of FY 2000 in order to accommodate the company's Y2K plans and concerns. Geographic Information Systems (GIS) technology was effectively used as the independent risk verification project continued its reviews of condominiums, Preferred Risk and Coastal Barrier Resources Act (CBRA) properties.

The new Cover America II advertising and marketing contract was awarded in FY 1999, including the requirement for annual customer service surveys targeting policyholders and insurance agents who sell flood insurance. Correspondence and complaints will also be analyzed to determine how well the program is serving its customers. Also, *Standard Flood Insurance Policies* are in the process of being rewritten to improve their readability and usage.

Program General Purpose: *Create and reinforce existing partnerships; and implement an outreach, information, and coordination program that assures regular, effective communication with those concerned about the NFIP.*

Program Emphasis: *Positive responses to NFIP assessment instruments and constructive support in pursuing insurance sales and other goals.*

Program Performance: It is important that insurance companies and agents, lenders, realtors, states and local officials are aware of the NFIP so that they can inform citizens and communities of the importance of buying flood insurance.

As an element of the Cover America marketing and advertising campaign, the FIA began conducting surveys of selected constituencies in 1995, developing baseline indices of awareness and support, as well as initiating activities to further assure regular and effective communication with NFIP customers.

From the campaign's initiation in October 1995, through September 1999, the Cover America campaign generated more than 625,000

responses for more information about the NFIP. Close to 500,000 of these were telephone responses, and of those, more than 92,000 (19%) were referred to an insurance agent. Additionally, since the campaign began, awareness of the NFIP has increased from 48% to 65% (a 17% increase). Favorability of the NFIP among all survey respondents increased 10%, reaching 65% in April 1999. Moreover, favorability of the NFIP among those aware of the NFIP increased 12%, reaching 51% in April 1999.

The FIA targets and maintains effective communication with key constituencies, including insurance producers, WYO insurance companies, the Federal Financial Institutions Examination Council, and its constituent members. FIA accomplishes this by using a call for issues and through meetings and publications, e.g., annual flood conferences, insurance agent and lender workshops (held throughout the year nationwide), the semi-annual *Watermark* newsletter, and the NFIP *Annual Stakeholders Report*.

Many positive suggestions on improving the NFIP were received as a result of the formal Call for Issues outreach and communications process conducted in accord with the Mitigation Directorate. Over 400 insurance-related issues were submitted and analyzed, and a report on the recommendations accepted, was in preparation at the end of the year.

CONCLUSION

Fiscal year 1999 was a year of significant accomplishments for the National Flood Insurance Program, including:

- Through the nexus of insurance and mitigation, NFIP helped the nation's taxpayers avoid an estimated \$1 billion in flood damages;
- Major savings to the National Flood Insurance Fund will be achieved as a result of the development of a repetitive-loss strategy. Initially targeting properties that have experienced four or more losses, grants will be provided to state and local governments through the FMA and HPMG programs and, as appropriate, these funds will be used in conjunction with NFIP claims payments to acquire, relocate or otherwise mitigate future losses;
- Completion of the congressionally mandated subsidy study will result in specific proposals that should also positively impact the financial position of the NFIP;
- The Federal Insurance Administration and the Mitigation Directorate started a comprehensive review of the three decades of the NFIP in order to measure its accomplishments and to determine means to increase its effectiveness and efficiency;
- The structured business improvement process study, started at the end of FY 1999, will examine existing and emerging technologies and is expected to produce a series of changes that will facilitate the creation and exchange of essential information, improve turn-around times, improve accuracy, and reduce costs;



- Other FY 1999 initiatives, including the re-write of the *Standard Flood Insurance Policies*, will help improve customer service and satisfaction;
- Work continued with NFIP partners, including community officials, insurance companies and agents, lenders, and others to encourage more people to buy and keep flood insurance. Insurance marketing activities included, as appropriate, promotion of flood mitigation, including support for *Project Impact* to reduce the devastating effects of floods through better building practices; and
- To help people understand the importance of flood insurance, the financial protection it provides, and to take action to protect their homes, families and businesses, the new advertising campaign—Cover America II which incorporates a new brand—“Be Flood Alert,” builds on the yellow diamond street sign used to warn of upcoming danger.

All of these program activities are designed by the NFIP to help reduce the likelihood and impact of uninsured flood losses, and reduce the cost of disasters.

UNITED STATES FIRE ADMINISTRATION



Fire loss in the United States is an extremely serious problem, causing huge losses in lives and property.

America's fire death rate is one of the highest per capita in the industrialized world. With rates of 7.8 fires per thousand, and 108 injuries and 19 fatalities per million Americans, far too many citizens continue to be killed and injured each year. Ten-year averages for fire loss in the United States are about 2.0 million fires, 4,900 deaths, and 28,000 injuries per year. Additionally, our fire loss has an extremely high fiscal impact on the economy. Annually, direct property loss from fire is estimated to exceed \$9 billion, and the total cost of fire to the American economy is estimated to be more than \$159 billion.

A note should be made that the statistical basis for comparison of current and previous fire loss records is at question. Because of the use of questionable data, annual fire loss estimates of the 1970's were often quoted at highs of 12,000 deaths and 300,000 fire related injuries. Current data trend analysis indicates that when adjusted appropriately, those early estimates were inaccurate and highly overstated. And because of wide distribution of those earlier estimates, we continue to see inappropriate comparisons between today's fire loss rates and those of years past.

Even with the correction to earlier estimates, America's fire record of the early seventies was dismal. Acting to decrease these tragic losses, Congress established the United States Fire Administration (USFA). Since that time, through public education and awareness, training, research, technology development, data collection and analysis, and partnering with other fire safety interests, the USFA has helped to reduce the fire and death rate of the nation. Ten-year trends for the major record keeping categories of fires, deaths, and injuries all indicate considerable improvements and steady decline in the fire record of the nation. Fires have declined by 17.2%, injuries by 18.0%, and deaths by 25.6%. These improvements are related to providing better public fire safety education, improved fire detection and suppression technologies, increased code enforcement, better public fire protection by the fire service, and improved fire data collection and analysis.

The mission of the USFA, supported by resources of almost \$32 million in FY 1999, is to reduce life and economic losses due to fire and related emergencies through leadership, advocacy, coordination, and support. USFA serves the nation independently, in coordination with federal agencies, and in partnership with fire



Wildfires consume thousands of acres annually and often threaten established communities.



Through partnerships and special initiatives, USFA involves the fire service, the media, other federal agencies, and safety interest groups in the development and delivery of fire safety awareness and education programs. These programs are targeted at those groups most vulnerable to the hazards of fire, including the young, elderly, and disabled.

The National Fire Problem

Year	Fires	Deaths	Injuries	Direct Dollar Loss (in millions)
1988	2,436,500	6,215	30,800	\$11,077
1989	2,115,000	5,410	28,250	\$10,951
1990	2,019,000	5,195	28,600	\$9,385
1991	2,041,500	4,465	29,375	\$10,906
1992	1,964,500	4,730	28,700	\$9,276
1993	1,952,500	4,635	30,475	\$9,279
1994	2,054,500	4,275	27,250	\$8,630
1995	1,965,500	4,585	25,775	\$9,182
1996	1,975,000	4,990	25,550	\$9,406
1997	1,795,000	4,050	23,750	\$8,525

protection and emergency service communities. With a commitment to excellence, USFA provides public education, training, technology, and data initiatives.

PUBLIC EDUCATION

Program Emphasis: *Educate the public about fire prevention, targeting groups most vulnerable to fire by increasing the usage of public education materials by 2% in the general public, and increase the hotel/motel master list by 10%.*

Program Performance: In addition to providing fire safety messages for the general public, USFA also developed and provided public education programs designed specifically for identified at-risk audiences. Partnerships were established with both public and private organizations to ensure that fire safety messages were not only delivered to the proper at-risk audiences, but to ensure the messages were prepared in a format that would best get the fire safety messages delivered. These at-risk audiences included children, minorities, the elderly, and the physically challenged. In FY 1998, 1.8 million publications were disseminated through USFA's national public fire safety education program. In FY 1999, 1,565,648 public fire safety education publications were disseminated. In addition, 571,481 public fire safety education publications were disseminated to target interest groups, bringing the total publications disseminated to 2,137,129, or an 18.7% increase over FY 1998.

USFA has partnered with numerous entities throughout the nation to design and disseminate effective public education materials. Examples of some of the more popular programs follow:



Vehicle fires pose a real threat to fire service responders due to the high possibility of fuel explosion.

- USFA provided technical assistance and partnered with the Advertising Council and at least 12 other organizations in the development of a fire safety program, *Be Cool About Fire*, for children ages 5-8. The other organizations included: Consumer Product Safety Commission, International Association of Fire Chiefs, International Association of Fire Fighters, American Association of School Administrators, American Trauma Society, Congressional Fire Services, General Federation of Women's Clubs, International Association of Black Professional Fire Fighters, National Association of Elementary School Principals, National Consumers League, National Parent-Teacher Association, and the National Volunteer Fire Council. Advertising agencies and media stars donated their time to making a video and associated support materials. Media professionals have told us that the commercial value of this program exceeds \$40 million.
- One of the first national fire safety Web sites designed specifically for children was the USFA's Kids Page. Through the use of child-friendly graphics, games, and an interactive cartoon fire extinguisher named "Extty," children learn about such issues as smoke alarm use and maintenance, home fire escape plans, and home fire safety. This interactive tool has taught hundreds of children the importance of fire safety and has helped to reduce the chances of those children being injured or killed by fire.
- In cooperation with the Children's Television Workshop's *Sesame Street*, a public fire education program for use by daycare providers was developed in both English and Spanish. The materials are aimed at educating young children, an at-risk group which experiences double the national average fire death rate. This program has been instituted in hundreds of daycare centers throughout the United States and has resulted in teaching this at-risk population the importance of fire safety, thereby reducing their likelihood of being injured or killed by fire.

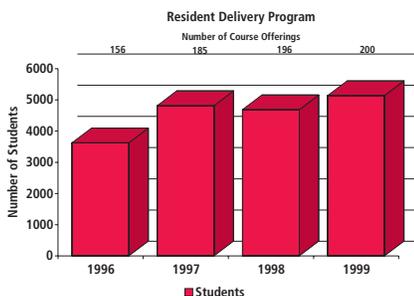
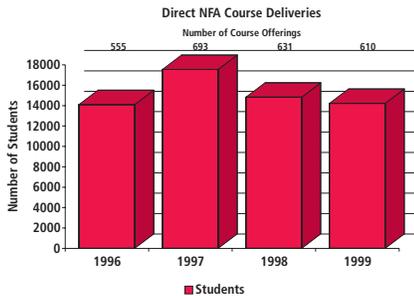
In cooperation with the General Services Administration (GSA), USFA and hospitality industry groups worked to enhance the National Master List of Fire-Safe Hotels and Motels. Currently, there are 23,000 properties listed on the Master List, an increase of 3,700 or 18.5% over FY 1998. An extensive outreach effort to hotels, motels, and hotel chains was conducted. We developed new software to identify unlisted hotels and motels in the U.S. and further expanded this software to keep track of those facilities requesting to be added to the Master List. We also expanded services for applying to the Master List on the USFA home page, which now receives over 20,000 hits per month. The Hotel/Motel Fire Safety program also is available to the general public so that they can stay in fire safe accommodations while traveling with their families.

USFA continued to support the National Safe Kids Campaign with technical expertise and funding on fire safety awareness and education programs to the targeted high-risk group of children. The National Safe Kids Campaign acts through coalitions of public and private entities in local communities, which developed local fire

safety programs. Currently, 76 of the 240 local coalitions have fire safety programs. One of the smoke alarms installed through the Kansas Safe Kids program is credited with saving the life of a homeowner two weeks after installation. Safe Kids state and local coalitions distributed more than 19,000 smoke alarms. In a follow-up six months later, 91.5% of these alarms were still working and credited with saving 19 lives.



Through its courses and programs, the National Fire Academy works to enhance the ability of fire and emergency services and allied professionals to deal more effectively with fire and related emergencies.



TRAINING

Program Emphasis: *Provide training and education opportunities for the nation's fire protection community.*

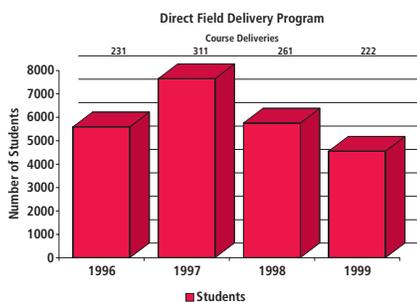
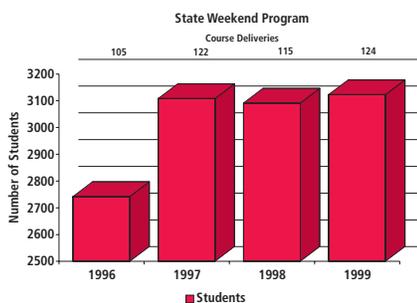
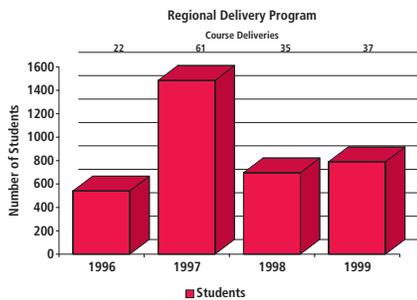
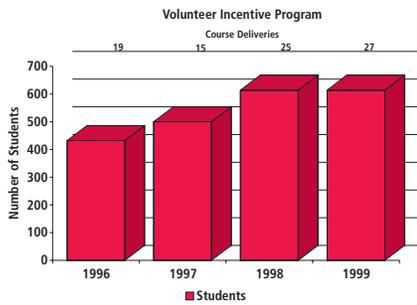
In keeping with the NFA's long-term training target of reaching 300,000 fire service personnel, our objective is to deliver 647 courses, reaching 18,512 students involving 71,908 student days through our traditional direct deliveries; and to increase the number of students trained through new technology-based approaches.

Program Performance: In FY 1999, NFA provided a grand total, through all delivery methods, of 1,182 course offerings reaching 52,600 students. We accomplished this through three different delivery modes to maximize participation.

The first is the traditional method where NFA provides the instruction directly to the students and is responsible for all the costs associated with the delivery. This includes resident deliveries, the Volunteer Incentive program, and regional deliveries. This method accounted for 264 course offerings to 6,538 students. The second method of delivery is done in conjunction with state and local sponsors who share cost of delivery. This includes the State Weekend program and direct field deliveries, which accounted for 346 course offerings to 7,675 students. The total of both methods is shown here, and specific categories follow.

Resident Delivery refers to training using courses in the resident curriculum delivered at the National Emergency Training Center campus in Emmitsburg, MD. NFA Resident Delivery courses are typically two weeks in length, although course lengths may vary depending upon the individual program and student needs.

◀ NFA's resident courses offer educational opportunities for the advanced professional development of mid-level and senior fire and emergency medical services officers and allied professionals involved in fire prevention and life safety activities. These resident courses often contain a variety of hands-on labs, require research papers or presentations using materials from the Learning Resource Center or the Internet, and provide a wide range of student networking capabilities both within and outside of class. In FY 1999, 200 course offerings were conducted, with 5,134 students trained, resulting in 44,107 student days. Since FY 1996, the number of resident courses and students trained has increased, reaching close to the capacity point by FY 1999.



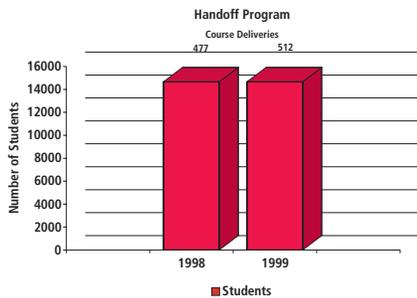
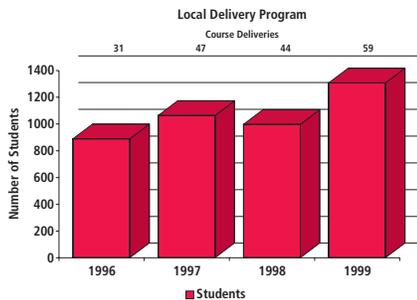
◀ Another aspect of the resident program is the Volunteer Incentive Program (VIP). The VIP is an intensive 6-day educational opportunity designed specifically for the volunteer fire service officer and conducted on the Emmitsburg campus. The Academy has compressed two weeks worth of course work into six days, tailored it to the special needs of the volunteer fire officer, and still maintained content, quality, and integrity. In FY 1999, 27 courses were conducted with 614 students trained producing 3,684 student days of instruction. There has been a steady increase in participation in the VIP during the last four years.

◀ The Regional Delivery Program offers the same 1- and 2-week courses normally taught at the NFA facility. The NFA's Training Resources and Data Exchange (TRADE) network, which operates within the 10 FEMA regions, provides the structure through which regional deliveries are offered. Students who participate in Regional Deliveries have the opportunity to meet and exchange ideas and information with colleagues from throughout their region in an informal setting outside the classroom. In FY 1999, 37 courses were conducted and 790 students trained, resulting in 4,448 student days. The major increase in attendance in 1997 was the result of a grant for arson investigation training.

◀ The State Weekend Program offers the same 2-day courses that are delivered in the field during designated weekends at the NFA. By offering these courses on weekends, students have additional opportunities to visit the campus and participate in Academy courses. In FY 1999, 124 courses were conducted and 3,123 students trained resulting in 6,516 student days of instruction. Program participation is limited by the number of classrooms and dormitory space.

◀ NFA's Direct Field Delivery Program is based on the concept of a strong program delivery linkage, shared cost implementation, and extensive leverage for maximum impact at the local level. Direct Field Delivery courses are short-term, intensive training experiences, designed to provide maximum opportunity for student participation near their home departments. The courses are 16 hours in duration, and usually offered on weekends to accommodate volunteer, career, and allied professionals who may find weekday attendance difficult to schedule. In FY 1999, 222 courses were conducted with 4,552 students trained in 8,998 student days of instruction. In FY 1997 the number of students participating showed a dramatic increase because of the availability of arson grant funds.

The third method of delivery is the indirect method where the NFA develops the course materials, and they are delivered by state and local fire and rescue training agencies or used independently. This method includes local deliveries, hand-off deliveries, independent self-study, and college deliveries. This method accounted for 572 course offerings to 38,387 students, and produced 61,454 days of instruction. The following provides specific results.



◀ Local delivery refers to the delivery of selected courses through state and local training systems. The 1- and 2-week courses being delivered were, or are, part of the resident program and are delivered in conjunction with state and local fire training agencies to reach more individuals. These courses have not been handed off, and delivery is controlled by the Academy. In FY 1999, 59 courses were conducted, with 1,307 students trained and 10,525 student days of instruction.

▼ Handoff delivery refers to dissemination of course materials to state and local training systems, and is the culmination of the Academy's State Delivery outreach effort to provide supplemental curriculum support to existing state and local fire training and education programs. In FY 1999, 512 course offerings were conducted, with 14,657 students trained, producing 28,813 student days of instruction.

Independent study refers to self-paced learning. The NFA offers several independent study courses in a variety of topical areas. In FY 1999, 22,406 students were trained, resulting in 21,946 student days.

College delivery refers to selected NFA courses that are delivered as part of a college curriculum. The courses are taught by NFA-approved instructors, using materials normally delivered in the resident environment. In FY 1999, there was one college offering to 17 students, producing 170 student days.

Supporting the resident delivery system at the NFA is the Simulation Laboratory, which provides simulation training in command and control and tactical incident operations, as set forth by the incident command system. The laboratory is configured to afford candidates "real-world" training in a variety of emergency situations, encompassing incidents such as dwelling fires, commercial and large structure fires, catastrophic disasters and major emergency events, such as hazardous materials releases and mass casualty incidents. Computer generated three-dimensional and two-dimensional models are employed to provide visual cues, which are generated through the use of commercial off-the-shelf special effects, graphics, and animation software, and controlled through a standard personal computer, by menu driven software. The object of simulation training is to provide the candidate with a variety of visual and auditory cues, which will enhance the decision making process in practical situations.

At present, 19 computer-enhanced simulations used to support NFA Command and Control courses have been completed. Several more are under development at this time. Also, several computer based training (CBT) scenarios are under development. The tutorial compact disk for the CBT's and the Incident Command Self-Study compact disk have been completed. Future plans call for joint transmission of NFA and Emergency Management Institute training to remote sites. Personnel who have attended this NFA training have reported how beneficial it was in the successful management of significant events in their local jurisdictions.

In FY 1997, NFA began a systematic survey of its resident students several months following NFA training to determine the effectiveness of that training on the nation's fire service. The data for FY 1997 and FY 1998 indicate that 95% of NFA resident students are using the training that they received when they return to the job. Ninety-five percent say that the NFA course improved their job performance. Moreover, 97% of those students say that the course contributed to their professional development. Preliminary data returned from the FY 1999 data collection indicates that those students rate NFA training highly as well. When students get back on the job, 96% of them say that they share NFA training with their peers, and one-quarter of the respondents actually conduct a formal training session when they return to the job.

The Academy's Training Evaluation Center integrated all of its resident student surveys into the center's operations in FY 1999. A new end-of-course evaluation form designed expressly for NFA students has been in use since January 1999. Data collected so far from 5,229 resident students, shows that 96% of them expect that the NFA training they just received would help them to do their job better. Additionally, NFA is learning, through the use of the revised end-of-course form, how its resident students find out about NFA training opportunities. Students are asked to check all sources of information about NFA training that apply to them. Over half (56%), said they found out about NFA training from the NFA catalog. Another 40% said they found out about NFA training from their local department, while 39% said they accessed information about NFA training via the Internet.

Along with seeking data on training effectiveness from resident students, NFA also surveys supervisors of students to obtain information about training effectiveness and the impact of NFA training on the student's department. Feedback from 1,173 supervisors surveyed in FY 1997 and FY 1998 indicate that 88% of supervisors have seen an improvement in the student's job performance as a result of NFA training. They are better able to plan their work and have a better understanding of management principles. They exhibit greater creativity in ideas and performance, and are able to look at what the long-range impact of their decisions may be before acting. Additionally, they are better able to analyze service levels and community needs.

In FY 1999, in addition to maintaining a rigorous long and short-term evaluation program, the Academy completed development of 21 new or significantly revised course projects, including several new courses on emergency response to terrorism. Additional work was undertaken or advanced on 27 curriculum planning or training materials development projects. In each case, the new or revised training programs are documented in a national needs analysis, conducted by a representative group of fire service and allied constituents, experts in the subject matter, the professional discipline or the target audience to be addressed by that training program.



USFA works with public and private groups to promote and improve fire suppression systems, and on fire and emergency responder health and safety.

TECHNOLOGY

The USFA works with public and private groups to promote and improve fire prevention and life safety through research, testing and evaluation. And it generates and distributes research and special studies on fire detection, suppression and notification systems, and on fire and emergency responder health and safety.

Program Emphasis: *Conduct a continuing program of development, testing, and evaluation of equipment, practices, and technology for use by the nation's fire and emergency services by increasing by 2% the use of USFA's fire mitigation materials at the federal, state and local levels, and increase the fire community's knowledge of fire and technological hazards and their application of mitigation technologies through improved targeted distribution of research reports.*

Program Performance: In FY 1998, USFA began to review and revise, where necessary, its current community fire defense long-range planning model. This review included the program's concept, its planning process, and supporting methodology. In turn, USFA is currently developing a revision of the master-planning program that will integrate these findings. Primarily, these revisions will reflect the experience of communities that have utilized the program in the past as well as the broadening mission of the nation's local fire services since the development and implementation of the original fire prevention and control master-planning program.

USFA continued its program of development, testing and evaluation of equipment, practices, and technology for use by the nation's fire and emergency services.

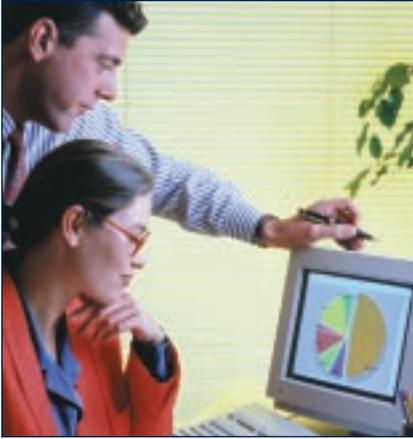
In FY 1999, the USFA distributed 215,123 fire mitigation materials. This includes 108,895 publications, 100,000 smoke detectors, and 6,228 videos. This compares to 117,325 publications distributed in FY 1998 for an 83.3% increase.

As a result of congressional directives, USFA initiated the National Smoke Detector Pilot Project which focused on the installation of a total of 100,000 smoke detectors in 20 communities at high risk for residential fires. Representatives of these communities were trained by the NFA in proper smoke detector installation. Guidance was provided on the data that will need to be obtained locally as well as other administrative requirements. These local representatives were also provided with fire prevention materials, including materials in Spanish and English focusing on this project. This material is intended for occupants of the homes in which the smoke detectors are installed. A Report to the Congress on the program will be delivered in 2000.

Two videos on campus fire safety were developed and distributed nationally. *Get Out and Stay Alive*, a video developed in cooperation with the Eau Claire, WI, Fire Department, was distributed to safety/facilities offices in all identified colleges and universities in the



Smoke detectors play a crucial role in reducing injuries and deaths from building fires.



The National Fire Data Center (NFDC) administers a national system for collecting, analyzing and disseminating information on fire and other emergency incidents to the fire community. The NFDC provides a national analysis of the fire problem, identifying problem areas for which prevention and mitigation strategies are needed.

United States, State Fire Marshals, and national fraternities and sororities. The video promotes student fire safe behavior when a smoke alarm goes off and the building must be evacuated. A total of 4,173 *Get Out and Stay Alive* videos were distributed. The *Get Out and Stay Alive* video was awarded the Gold Award of the Greater Wisconsin Chapter of the International Television Association (ITVA) Cameo Fest and National ITVA Golden Reel Award. The second video, *Ready to Respond*, which advocates the installation of sprinkler systems in college residential occupancies, was sent to all identified colleges and universities in the United States. A total of 2,044 *Ready to Respond* videos were distributed.

In addition to routine distribution of new publications to fire and Emergency Medical Services (EMS) groups, USFA continued to target distributions of publications to the fire and EMS services based upon special requests or as part of USFA fire and life safety projects. Targeted distributions included: *Strategies for Marketing Your Fire Department—Today and Beyond*; *Safety and Health Considerations for the Construction and Design of Fire and EMS Stations*; *Technical Rescue Program Development Manual*; *Implementation of EMS in the Fire Service*; and *Safety, and Health Considerations for the Construction and Design of Fire and EMS Stations*.

Through its role in administering and chairing the Federal Interagency Committee on Emergency Medical Services (FICEMS), USFA has supported a continuing exchange of information among agencies with EMS responsibilities and interest. Such dialogue promotes interagency cooperation and helps avoid duplication of effort.

DATA

Program Emphasis: *Identify the national fire problem and analyze, publish and disseminate related data and information by transitioning 25% of contributing states to National Fire Information Reporting System Version 5.0 (NFIRS 5.0) and bring in or return to NFIRS 10% of non-contributing states. Also, increase access to USFA program information including all new publications via the Internet, and research and publish a minimum of four analytical reports annually on topics suggested by NFIRS data and the fire service community as well as publish an annual firefighter fatality study.*

Program Performance: The National Fire Incident Reporting System Version 5.0 (NFIRS 5.0) was implemented for state use in January 1999. During FY 1999, 20 of the 41 states reporting in FY 1998 (48.8%) initiated implementation, nine of which began reporting data in the new format (22%). Two formerly non-participating states, Alabama and Missouri, joined the NFIRS system during this period, increasing the total number of states reporting from 41 to 43 for a 4.9% increase in participation.

The NFDC issued the Eleventh Edition of *Fire in the United States, 1987-1996*, a comprehensive analysis of the nation's fire problem

heavily based on NFIRS data. In addition, five in-depth special topic reports were produced including a *Profile of the Urban Fire Problem*, an analyses of the following at-risk groups: older adults, the mobility impaired, the deaf and hard of hearing, and the blind and visually impaired. Publications by the NFDC address the congressional mandate for USFA to identify the national fire problem. For 20 years, our data has identified our fire problem as one of individual fire deaths, occurring in private dwellings, and caused primarily by the misuse of smoking materials.

The public education, research, anti-arson, and analytical efforts of the USFA are directed at addressing the primary fire problem of the United States:

- Residential fires leading to fire deaths—75% of all civilian deaths occur in residential fires;
- Kitchen fires resulting in fire injuries—22% of fire injuries are related to cooking; and
- Arson fires—13% of fire injuries are from arson fires.

There was a 20% increase in the number of publications posted on the USFA Web site where they are available for review and download. Many of the documents are then reproduced for local use. The USFA Web site received an estimated 12 million hits in FY 1999, almost double the previous year. The NFDC Home Page is among the Top 10 most popular pages on the site. Publications of the NFDC, such as *Fire in the United States* (10th and 11th editions), the *1997 Report on Firefighter Fatalities*, and *Fire Data Analysis Handbook*, are consistently among the Top 10 publications downloaded.

In FY 1999, two new Web applications were developed to facilitate easy access to commonly requested information.

1. State Fire Loss Reports. This application generates national and state fire loss profiles for civilian deaths, civilian injuries and property loss based on NFIRS data. Report results may be sorted by state or by fire loss rate for comparison purposes.
2. Firefighter Fatality Database. The NFDC has tracked and conducted an analysis of firefighter fatalities for over two decades. Through the collection of information on the causes of firefighter deaths, the NFDC is able to focus on specific problems and direct efforts towards finding solutions to reduce the number of firefighter fatalities in the future. This information is also used to measure the effectiveness of current efforts directed toward firefighter health and safety. The Firefighter Fatality Database allows users to run custom queries on the circumstances surrounding the deaths of firefighters for incident analysis purposes. The program displays a tally report that contains a frequency count on every item in the database. Currently, the database contains information on fatalities for which incidents occurred during FYs 1995–1998. During FY 2000, the NFDC will continue to enter historical data that currently exists only in hardcopy.

CONCLUSION

The USFA's resources are focused in support of key efforts to address America's unacceptable fire problem. Primary program elements include collection and analysis of national fire data, training of the fire service community, developing and delivering effective public fire safety education messages, and research and technology transfer to improve public and fire fighter survivability in the fire environment. However, USFA's success continues to be magnified through effective leveraging of limited resources by entering into partnerships, joint ventures, and alliances with the private sector and other federal agencies.